

UNITED STATES OF AMERICA
CENTERS FOR DISEASE CONTROL

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NATIONAL INSTITUTE FOR OCCUPATIONAL
SAFETY AND HEALTH

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ADVISORY BOARD ON RADIATION AND
WORKER HEALTH

+ + + + +

116th MEETING

+ + + + +

WEDNESDAY
MARCH 22, 2017

+ + + + +

The meeting convened at 8:30 a.m.,
Central Time, in the Embassy Suites by Hilton,
Chicago Naperville, 1823 Abriter Court,
Naperville, Illinois, James M. Melius, Chairman,
presiding.

PRESENT:

JAMES M. MELIUS, Chairman
HENRY ANDERSON, Member
JOSIE BEACH, Member
BRADLEY P. CLAWSON, Member
R. WILLIAM FIELD, Member*
DAVID KOTELCHUCK, Member
JAMES E. LOCKEY, Member
WANDA I. MUNN, Member
GENEVIEVE S. ROESSLER, Member
PHILLIP SCHOFIELD, Member
LORETTA R. VALERIO, Member*
PAUL L. ZIEMER, Member
TED KATZ, Designated Federal Official

REGISTERED AND/OR PUBLIC COMMENT PARTICIPANTS

ADAMS, NANCY, NIOSH Contractor
ANIGSTEIN, BOB, SC&A*
CARROLL, STEPHANIE*
CRAWFORD, FRANK, DOL*
FITZGERALD, JOE, SC&A
HAND, DONNA*
HINNEFELD, STU, DCAS
HUGHES, LARA, DCAS
KINMAN, JOSH, DCAS
KNAPP, JANICE*
KUCER, DAVID
KUCER, KAREN
LEWIS, GREG, DOE
LIN, JENNY, HHS
NETON, JIM, DCAS
RUTHERFORD, LAVON, DCAS
STEPHENS, HUGH
STIVER, JOHN, SC&A
TAULBEE, TIM, DCAS
TOMES, TOM, DCAS*
WORTHINGTON, PATRICIA, DOE

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

2 8:32 a.m.

3 **WELCOME AND INTRODUCTIONS**

4 CHAIRMAN MELIUS: Welcome, everybody.
5 This is Meeting 116 of the Advisory Board on
6 Radiation and Worker Health.

7 And let me turn it over to Ted Katz,
8 the Designated Federal Official to do the
9 housekeeping here.

10 MR. KATZ: Welcome folks who are here
11 in Naperville and on the line.

12 The Advisory Board meeting, some just
13 general information. People that are on the
14 line.

15 The materials for this Board meeting
16 that will be discussed today, the presentations,
17 they're all posted on the NIOSH website schedule
18 of meetings, today's date, including the agenda
19 so you can follow on with the documents that are
20 being discussed and the presentations that are
21 discussed there. Because the background reading
22 is there as well.

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1 We also have a Skype connection for
2 this which is shown on the agenda so you can
3 follow along in realtime if you're on the phone
4 with the presentation, see the presentations
5 there.

6 You'll still use this audio though,
7 the phone number that you've dialed in to listen
8 here instead of the audio on Skype if you do that.

9 So, also we have a public session,
10 public comment session this afternoon, early
11 evening. It begins at 5 p.m. That will be both
12 for people in the room at that time and on the
13 phone. And I'll make an announcement in the room
14 closer to time. But if there are any people that
15 are already here this morning you can sign up to
16 speak.

17 If you're in the room you can sign up
18 to speak outside the door here. There's a sign-
19 up sheet.

20 For folks on the line you don't need
21 to sign up. We'll be taking people in the room
22 first dealing with the site here, Argonne
23 National Lab. And then we'll go to people on the

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1 phone after that.

2 We also have a meeting tomorrow,
3 tomorrow morning, and we'll get to that. But the
4 public comment session is only this afternoon.

5 I'm going to do roll call. And I will
6 address -- for the Board Members I will address
7 the conflicts of interest where we have them.
8 It's easier than doing what the Board Members
9 have in there.

10 But we'll run down roll call
11 alphabetically and I'll touch on conflicts where
12 they exist for today's agenda as we go.

13 (Roll call.)

14 MR. KATZ: And that takes care of it.
15 We have a quorum so the meeting can proceed. And
16 that takes care of the preliminaries. Thank you.

17 Oh yes, for people on the telephone
18 line please mute your phones except for the Board
19 Members who will be addressing the rest of the
20 Board at times.

21 If you don't have a mute button press
22 * and then 6 to mute your phone. You also press
23 * and 6 to take your phone back off of mute.

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1 And also please, no one on the phone
2 put the call on hold, but hang up and dial back
3 in if you have to leave the call for a piece.

4 Putting it on hold will cause audio
5 problems for everyone else attending. Thank you.

6 CHAIRMAN MELIUS: Okay. Thank you,
7 Ted, and we'll get started with our NIOSH update.
8 Stu Hinnefeld.

9 **NIOSH PROGRAM UPDATE**

10 MR. HINNEFELD: Thank you, Dr.
11 Melius. There's a certain sameness to my
12 presentation so I guess we'll -- but we'll go
13 ahead and go through it. Sometimes things do
14 change.

15 I thought about news items for this
16 meeting and I didn't really come up with any
17 breaking news. There may be some curiosity about
18 the budget. I know I'm curious about the budget.

19 There is no definitive word about what
20 we will face either for the remainder of this
21 year after April or next year.

22 Right now the government is funded on

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1 a continuing resolution that goes through about
2 April 28, roughly the end of April.

3 And then some sort of funding
4 mechanism has to be put in place for the remainder
5 of this year. And of course next year's budget
6 has to be enacted.

7 So, there's very little information at
8 any level of CDC or very little specificity in
9 the President's budget for HHS, although the
10 President's budget is rarely enacted as proposed.
11 So it's just a big question mark. We'll know
12 more when we know more.

13 For outreach activities we did
14 participate and are about to participate in a
15 handful of outreach activities here in the near
16 future.

17 Just last week we attended with the
18 other members of the Joint Outreach Task Group
19 which are DOE, DOL and the Ombudsman for DOL we
20 attended a meeting in Los Angeles for the rollout
21 of the latest addition to the Area IV Santa Susana
22 SEC.

23 They had two meetings, one in Simi

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1 Valley and one for some reason in San Bernardino.

2 Simi Valley was reasonably attended.

3 There weren't many attendees in San Bernardino.

4 In April the Office of the Ombudsman
5 is sponsoring an outreach meeting in Albany,
6 Oregon. There is an AWE there called Wah Chang
7 that is on our list.

8 And we have actually -- we got a call
9 from a claimant in that area wanting us to go.
10 So, while we don't necessarily attend all of the
11 Ombudsman's meetings we are going to attend this
12 one.

13 And also in April there is a Joint
14 Outreach Task Group meeting in Richland in
15 association with the Advisory Board on Toxic
16 Substances meeting which I often call the Part E
17 Board. And we expect we'll attend that as well.
18 We'll have somebody there at least -- maybe
19 attend part of that Part E Board meeting because
20 as of yet none of us have seen any part of that
21 Board meeting.

22 So, getting into the statistics on
23 claims. It's largely the same picture as we've

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1 had in the past. The numbers just keep going up
2 by about 200 a month roughly from DOL.

3 A little less than that really in
4 terms of new claims, maybe about 180 a month, but
5 pretty close to 200. And that's been going on
6 that way for several years. So every 4 months
7 there's about 800 more claims.

8 Of the claims submitted -- most of the
9 claims submitted, DOL of course went back with
10 dose reconstruction and some were pulled for
11 various reasons on the way.

12 Of the cases with us these are fairly
13 typical numbers. These numbers are as of the end
14 of February. So these numbers fluctuate every
15 day.

16 Some 300 in DR process. Almost 300.
17 That's actually a little high, almost 300 in the
18 hands of claimants. There's a draft DR in the
19 hands of claimants.

20 And then some 800 being in
21 development.

22 Compensation rate is about the same,
23 about 28 percent. It's been that way for quite

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1 a while now.

2 And the DOE records responses are very
3 prompt. I think last meeting there was a little
4 more -- I think there were more outstanding more
5 than 60 days than 5.

6 So there was one particular site I
7 remember last time that had had some personnel
8 changes and was struggling to return some things.
9 But now things are being returned pretty promptly
10 and very few of them going along.

11 I've probably mentioned in the past
12 that this is in part due to the secure electronic
13 records transfer process that DOE built and that
14 we share with them and they share with DOL as
15 well that allows for timely sharing of electronic
16 files as opposed to paper, and also provides a
17 tracking mechanism for tracking requests and
18 responses.

19 Our summary of the first 20,000 claims
20 is listed here broken down by where they're at.

21 Most of the claims of the first 20,000
22 that are with NIOSH have been administratively
23 closed meaning either the claimant opted out of

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1 the process before going through the -- and
2 didn't return the OCAS-1 form, or in some cases
3 the claimant died before the OCAS-1 could be --
4 before the claim could be completely
5 administered.

6 And then of the 37 claims that are
7 with us out of the first 20,000 those are all
8 returns that have been returned within the past
9 several months.

10 So, I went by it pretty quickly. Any
11 questions or anything for this?

12 CHAIRMAN MELIUS: Any questions for
13 Stu? I guess not. Okay, thanks Stu.

14 Next we'll have an update from
15 Department of Labor.

16 **DOL PROGRAM UPDATE**

17 MR. CRAWFORD: Good morning, this is
18 Frank Crawford from the Department of Labor. Stu
19 has kindly agreed to advance my slides.

20 Here we show this slide as most of the
21 others each time. And we see that Part B
22 compensation now amounts to \$6.2 billion, Part E

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1 \$4 billion. And of course combining numbers,
2 \$10.2 billion. That's compensation paid to date.

3 The total compensation paid also
4 includes medical bills of \$3.3 billion for a
5 total of \$13.5 billion in total compensation.

6 We also see here we have almost
7 109,000 claimants paid. This exceeds the number
8 of cases of course because there are multiple
9 claimants in many cases.

10 This has not changed substantially in
11 quite some time. These are Part B cases filed.

12 Of interest we see that about 15
13 percent of cases are SEC cases that are never
14 brought to a dose reconstruction, never sent to
15 NIOSH.

16 There's another 12 percent of total
17 cases that have SEC approval but are sent to NIOSH
18 to qualify for medical benefits.

19 And then NIOSH gets a further 34
20 percent of the total cases.

21 RECA is a small slice at 9 percent.
22 And we have other cases which as you will see in
23 the subheading there which are substantial at 30

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1 percent, but they involve beryllium sensitivity,
2 chronic beryllium disease and chronic silicosis.

3 Here we have all Part B cases with a
4 final decision. Now, this will include SEC
5 cases.

6 And we see that we have 52 percent
7 cases accepted and 48 percent denied. And we
8 have 95,133 cases that have a final decision.

9 Our numbers will probably be slightly
10 different than NIOSH's, but they're in the ball
11 park.

12 We show that we referred 47,546 cases
13 referred to NIOSH for dose reconstruction.
14 Remembering that some cases never go to NIOSH
15 because they're SEC approval only, or they
16 involve beryllium disease, et cetera.

17 But NIOSH currently holds
18 approximately 2,000 cases in various stages of
19 the dose reconstruction process.

20 And NIOSH has returned 39,343 cases
21 with dose reconstructions and a further 6,200
22 were withdrawn from NIOSH with no dose
23 reconstruction.

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1 Here we have Part B cases with a dose
2 reconstruction and a final decision. In general
3 in other words these do not include SEC cases.
4 There is a small overlap, but not too large.

5 We see here that the final approvals
6 have gone down 52 to 35 percent.

7 In terms of compensation for Part B
8 cases with final decision to accept these are the
9 cancer cases.

10 Based on dose reconstructions 10,095
11 cases have been accepted and \$1.5 billion in
12 compensation has been paid.

13 For SEC cases we have almost 25,000
14 cases accepted and \$3.71 billion in compensation.

15 There's only a small overlap as I
16 mentioned between cases that are both approved
17 for SEC status and have a PoC greater than 50
18 percent with a dose reconstruction. That's 934
19 cases.

20 All accepted SEC dose reconstruction
21 cases combined amount to 35,916 cases, about \$5.3
22 billion in compensation.

23 On this chart which also doesn't seem

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1 to change much we have the monthly percentages of
2 new cases, DOE cases versus the AWE.

3 AWE has been fairly steady for quite
4 a while at roughly 10 percent of cases received.

5 Top four work sites for Part B are
6 Hanford, Savannah River, Nevada Test Site, and
7 the Y-12 plant. These were all large sites so
8 that's not too surprising.

9 This slide and the one following it
10 contain some of the sites that -- or perhaps all
11 of the sites that will be discussed at this
12 meeting.

13 Just to go through them relatively --
14 I think some of the more interesting things are
15 how many cases are generated at these sites and
16 how far we've gone in terms of producing dose
17 reconstruction.

18 Carborundum is first. And we see that
19 there are 316 cases, 565 claimants in that table.
20 And we've had final decisions on 297 and Part B
21 approval on 64.

22 Right next door we have the Savannah
23 River Site which is much larger of course, 17,782

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1 cases with 3,279 Part B approvals. Another 3,559
2 Part E approvals.

3 I don't think we're showing SEC
4 approvals on this slide.

5 That's at Los Alamos with 9,500 cases.
6 And 2,339 approvals which is quite high compared
7 to Savannah River.

8 Idaho National Laboratory with 5,758
9 cases, 827 approvals.

10 Rocky Flats plant, 8,117 cases with
11 1,927 approvals so far.

12 General Steel with 778 cases and 172
13 approvals so far.

14 Argonne Labs East, 1,172 cases, 220 -
15 - 12 approvals.

16 And last, Kansas City Plant, 2,769
17 cases, 283 approvals so far.

18 In terms of outreach events, town hall
19 meetings and traveling resource centers. We'll
20 see what we've done since the beginning of the
21 fiscal year October 1.

22 This is standard information also.
23 The members of the Joint Outreach Task Group. I

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1 won't go through each individual member.

2 Now in meetings held since the
3 beginning of the fiscal year, October 1, 2016
4 that is, we see that Huntington, West Virginia
5 with 35 people in attendance.

6 Then a conference call for medical
7 provider questions we had 26 participants. That
8 was in early February.

9 And then the next day 24 participants
10 for the same call.

11 And our future event is now a past
12 event. That seems to happen.

13 We had a meeting this month, March 15-
14 16 for Simi Valley and San Bernardino,
15 California.

16 And we have one upcoming in Pasco,
17 Washington on April 20.

18 Budgets have been a little tight so I
19 think we've been a little slow getting started
20 with the meetings, the remote meetings. But I
21 believe there will be more scheduled.

22 The rest of the slides are
23 boilerplate, that is they're presented exactly

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1 the same way at each meeting so I don't think we
2 need to go through them.

3 They detail the definitions and
4 compensation arrangements for Part B and Part E.
5 Any questions?

6 CHAIRMAN MELIUS: Any questions for
7 Frank? Okay, thank you, Frank. Appreciate it.

8 And next we'll hear from the
9 Department of Energy. Pat Worthington, ably
10 assisted by Greg Lewis.

11 **DOE PROGRAM UPDATE**

12 DR. WORTHINGTON: Thank you. Good
13 morning. It's always a pleasure to come and
14 address the Board.

15 Greg Lewis is the face of this program
16 and he certainly looks upward, across, and down
17 to make things happen. So occasionally I like
18 to come and brief the Board and provide some
19 additional support to Greg.

20 Today I think my colleague from NIOSH
21 has already said it, that it's pretty much a lot
22 of sameness associated with the presentation.

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1 But also that we're all in the same
2 boat in terms of continuing resolution. But our
3 commitment to the program and giving it high
4 priority with the funds that we have available to
5 us is important. And I wanted to certainly
6 express that.

7 A little bit about what we're doing.
8 It hasn't changed. I think that certainly NIOSH
9 and Department of Labor have some very important
10 roles, and it's our responsibility as Department
11 of Energy to make sure that we're making their
12 jobs easier, providing them with the information
13 that they need so that the claimants' concerns
14 can be addressed.

15 DOE's responsibility is kind of bent
16 in several ways. We've heard from NIOSH, we were
17 very pleased to hear that NIOSH and DOL are
18 working with us on the secured electronic records
19 transfer.

20 At one point we had some issues with
21 breaches and just a failure to get information on
22 time to the right organizations. And so this
23 secured electronic records transfer has certainly

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1 made the difference in a lot of ways and we're
2 glad that it's working.

3 Greg is looking at some additional
4 refinements that would reduce the cost associated
5 with it now. So again, I think that's working
6 well.

7 So, employment verification, exposure
8 records, very important to the workers that that
9 information is made available to DOL and NIOSH
10 with large-scale research activities.

11 And we continue to look at the best
12 way to describe the covered facility designation.

13 Individual records. The individual
14 records, the trends in terms of numbers, we
15 haven't seen a dramatic trailing off even though
16 we've been in this business for some time.

17 So the employment verification is
18 around 7,000 a year. Dose records, 4,000. And
19 then for DARs sort of around 7,000 as well.

20 A little bit about the individual
21 records and kind of the challenge that we have.
22 We like to view ourselves as a learning
23 organization and that we're learning from the

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1 many things that we work with over the years in
2 this program.

3 It is very complicated on the
4 individual records because we have different
5 systems from a long time ago working with systems
6 that exist today in order to make information
7 available.

8 But we've been creative in a number of
9 ways and I think that we'll continue to look for
10 ways to improve.

11 This idea that we go to a site, we ask
12 the sites to provide information, but depending
13 upon how they're structured it may be complicated
14 and convoluted for them to do that because they
15 have to go to different organizations, they're
16 reorganizing, restructuring, have different
17 contractors.

18 But I think again we're getting better
19 with that.

20 Also we are better I think engaging
21 all of the Department of Energy in our efforts.
22 We certainly work with security, we work with
23 headquarters, we work with site organizations.

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1 And they're making rosters available, other kinds
2 of things.

3 And so I think that they are becoming
4 more supportive of these efforts. And so when
5 we go to them for records and other things I think
6 we're getting more support for them.

7 And also occasionally we're hearing
8 from them that they're looking for ways to
9 improve on their process.

10 Volume of records, just to give you an
11 idea what we're doing with what we've been asked
12 to do.

13 In FY '16 we had over 18,000 records
14 from 25 different DOE sites. DOE sites are sort
15 of defined in different ways. You may look at
16 one geographical location, it may be one site.
17 You may look at a small site somewhere else and
18 it may be divided into very distinct contracts.

19 And so you have to deal with those
20 organizations as individuals.

21 A little bit about sort of the size of
22 the package, when we're done what does it look
23 like and what do we typically see.

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1 Employment verification, about 14
2 pages. NIOSH requests, 50 pages. DARs, 150.
3 So reports could look like two or three hundred,
4 or 100 to 200 pages. But the idea is what are
5 they requesting, and for DOE to do the best job
6 that we can in terms of making that information
7 available.

8 We heard about our goal in working
9 with DOL and NIOSH in terms of delivering
10 records, our response time.

11 That's a very important thing for us
12 to meet the response time, to get things to them
13 within the 60-day period so things can continue
14 to move on.

15 But sometimes it's really not a bad
16 thing if we have some that don't make it in the
17 60-day period. It means that we don't give up.
18 We continue to look for records and to look for
19 innovative ways of finding the information.

20 So we will continue to be committed to
21 getting things back within 60 days. But if
22 there's a need to look longer and harder we'll do
23 that.

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1 We heard from NIOSH some concerns
2 about contracting and changes of contracts at DOE
3 that delay things. It's a different sort of
4 world that we're living in in terms of
5 contracting, but we're working with the sites.
6 We're trying to anticipate when those changes are
7 about to happen and to find ways so there's a
8 smooth transition and we don't have to add delays
9 for the workers.

10 K-25, 6 late out of over 2,000. We
11 wanted to be perfect but it certainly was good.

12 Richland, 6 late out of almost 1,600
13 again.

14 Savannah River, we're very happy to
15 say that 1,316 on time. So we'll continue to
16 work with these and to do a better job.

17 Large-scale research projects are
18 driven by DOL and NIOSH. As Department of Energy
19 we don't want to define that for them. We want
20 to review it and work with them to make sure that
21 we can accommodate that.

22 And we say large-scale, we probably
23 say large-scale in some cases. Extensive time

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1 associated with that.

2 Again, some records are not easy to
3 recover and so we want to work with them as long
4 as it takes to get the information.

5 We have a number, over 10 large-scale
6 research projects that we are working on. And
7 so that's quite a bit of resources and time, but
8 I think that we're working well with the
9 organizations to kind of set some priorities on
10 that, and again trying to anticipate when we may
11 have some funding or some other resource
12 constraints that would impact the program.

13 Average turnaround time, I think this
14 is an old slide but I think it's still good, about
15 eight working days.

16 We certainly want to make that
17 certainly not longer but shorter if that's the
18 case.

19 And if we need to we try to work with
20 the organizations to expedite reviews as needed.

21 Facility research. Research is our
22 responsibility to maintain that database.

23 I want to just mention that we've had

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1 a number of breaches and restructuring of
2 webpages and meeting new requirements from the
3 current administration.

4 We do have some situations where the
5 links are broken or that people can't use them
6 and so certainly we encourage NIOSH and DOL, they
7 certainly do that. They inform us right away,
8 or if there's some Work Groups or whatever that
9 have been reaching to these websites and they are
10 broken let us know so that we can get in and do
11 our best to fix it because it is a challenge in
12 the environment that we're working under today to
13 keep these things current.

14 And sometimes we're just not aware
15 that they're broken and they're not working.

16 You've heard about outreach. I think
17 that the joint effort between the three agencies
18 has been an excellent way of looking at how do we
19 best use the resources that we have, but also to
20 not frustrate the people that come out to the
21 events and say oh, that's for DOE, you need to
22 contact them. Oh, that's a NIOSH thing. You
23 need to contact them.

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1 But when the three agencies are there
2 and working together I think it's a win-win
3 regardless of the numbers. I think that it helps
4 all of the organizations.

5 The focus of the OPA is current in
6 former workers. But we want to extend our
7 commitment to our workers beyond the time that
8 they're working at Department of Energy.

9 And so we continue to fund and have
10 the former worker medical screening program where
11 it's a very unique opportunity for workers once
12 they leave the Department of Energy to come back
13 and have a comprehensive medical exam that's
14 focused on their work hazards and activities that
15 Department of Energy.

16 And in most cases they cannot get
17 these kinds of exams with their physicians who
18 may not be familiar in terms of the occupational
19 medical sense.

20 That program continues and we
21 published a report on an annual basis and we want
22 people to look at it and be aware of it. And we
23 think that in many ways it strengthens the OPA

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1 program by having these kinds of exams. And so
2 the information that's provided is useful to the
3 workers as well as to the Department of Labor
4 using the data.

5 You'll see in the presentation the
6 former worker program website for people to go
7 to. And if they're not familiar at all a
8 brochure that would provide some more
9 information.

10 Again, in Stu's word this was a
11 sameness of a presentation, but if there are
12 questions about any of the activities, things
13 that I discussed or didn't discuss Greg is here
14 and both of us would be very happy to address any
15 questions that you might have. And thank you.

16 CHAIRMAN MELIUS: Okay. Thank you,
17 Pat. Appreciate you coming out to see us.
18 Questions, anybody. Yes, Paul.

19 MEMBER ZIEMER: Dr. Worthington, I
20 want to ask a question that you may not be able
21 to answer at this time, but I'll ask it anyway.

22 And perhaps I could have asked a
23 similar one of Frank Crawford.

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1 Is it too early to know the views of
2 the new Secretary of Energy on this program?
3 Have you had a chance to brief him yet?

4 And what are the implications for
5 continued support on this program going forward?

6 DR. WORTHINGTON: I like your caveat
7 that I may not be able to answer it, but I will
8 give you the information that I do have to date.

9 I don't believe that the Secretary has
10 had an in-depth briefing on this program. There
11 were briefing packages prepared before the
12 Secretary came onboard.

13 We will look for every opportunity to
14 give him more information.

15 But I can tell you that the Secretary
16 is receiving a number of letters from individuals
17 across the department, some workers, some
18 advocates, some individual citizens that address
19 this program, or some other programs within our
20 organization.

21 So I think that he is learning through
22 the correspondence coming in what's going on and
23 what the expectations are of workers and

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1 advocates across DOE.

2 Soon we will have an opportunity to
3 brief him as these things continue to come across
4 his desk.

5 CHAIRMAN MELIUS: I was going to add
6 that Frank doesn't have a new Secretary yet so
7 he's off the hook on answering that.

8 Any other questions? Have we gotten
9 the Savannah River straightened out? That was
10 the issue last time. I believe so. I believe
11 we've made progress so I was going to thank Greg
12 and Pat. Thanks.

13 DR. WORTHINGTON: Thank you for your
14 attention.

15 CHAIRMAN MELIUS: Okay, now we'll
16 move to the GSI Site Profile review. And Dr.
17 Ziemer will be presenting who's the Chair of the
18 Work Group that covers that.

19 **GSI SITE PROFILE REVIEW**

20 MEMBER ZIEMER: Good morning,
21 everyone. I want to preface my remarks by
22 indicating that the Members of the Work Group are

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1 Wanda Munn, Josie Beach, John Poston and me.

2 Our last meeting in December of 2016 dealt
3 with the Appendix BB which is General Steel
4 Industries Rev 2.

5 And listed on this slide are a number
6 of documents that related to the work of the Work
7 Group at that meeting.

8 First of all, pointing out that in May
9 of 2016, May 26, 2016, NIOSH issued Appendix BB
10 Rev 2.

11 And on September 6 of that year SC&A
12 issued a memo discussing their review of Rev 2.

13 Later in the year, November 4, NIOSH
14 gave their response to the SC&A review.

15 And then on December 9 SC&A had a
16 reply issued with a reply to the NIOSH response.

17 The Work Group met on December 14 and
18 on that same day we also received from
19 [Identifying information redacted] a critique of
20 Appendix BB Rev 2 including some comments on the
21 subsequent SC&A review and follow-up by DCAS.

22 However, that particular document was
23 not part of our discussion at the meeting, but I

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1 want to make you aware that it was provided to us
2 and is one of the documents that is in hand.

3 My recollection is that was
4 distributed to all the Board Members as well. So
5 it's another document that you can reference as
6 we go forward on this particular site.

7 I would like to point out that
8 following the Work Group's meeting in December
9 there were some additional actions by NIOSH which
10 were not part of our actions but just to make you
11 aware that Rev 3 was issued on -- well I said
12 Appendix 3 in this slide, it should be Rev 3 was
13 issued on February 9, 2017.

14 And on the 22nd of February the
15 tasking was done by Ted Katz tasked SC&A to --
16 and here's a quote from the tasking -- "identify
17 any questions or concerns you might have
18 regarding the resolution of issues covered by
19 this revision.

20 We got a fairly rapid response from
21 SC&A on February 23. SC&A indicated, and this
22 was Bob Anigstein, indicated that a preliminary
23 review of Rev 3 had been done.

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1 And I quoted from his memo which I
2 received a copy of. And I'm not sure if this was
3 distributed to the Board prior to this, but at
4 least you have it now in the slide.

5 And quoting from the SC&A memo, all
6 but one of the substantive issues that have an
7 impact on future dose reconstructions of GSI
8 workers have been addressed.

9 The outstanding issue is the failure
10 to identify the neutron doses in tables 5, 6, 8,
11 and 9 as ambient dose equivalents.

12 And I have this note here to remind
13 you that the Work Group has not been involved in
14 this recommendation or evaluating the recommended
15 wording change.

16 But this information is just here for
17 the Board to make sure you are up to date on the
18 actions taken by NIOSH and SC&A following our
19 meeting, the Work Group meeting.

20 Rev 1 of Appendix BB resulted in 10
21 issues that were identified. Eight of those were
22 closed at the time and there were two that were
23 carried forward.

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1 So there were findings number 1 and 10
2 that we were dealing with in Rev 2 that when SC&A
3 reviewed Rev 2 to make sure that all of the 10
4 issues identified in Rev 1 had been covered.

5 They identified two findings that they
6 felt needed to be discussed further. The other
7 eight findings remain closed.

8 So here's the details for finding 1.
9 NIOSH indicated that neutron doses derived from
10 the MCNPX simulations should be assumed to
11 originate from neutrons with energies in the
12 range from 100 keV to 2 MeV. That's in their
13 document.

14 But SC&A found in their review that
15 using more exact energy ranges rather than this
16 single range resulted in 45 percent higher
17 neutron doses to the lungs of the betatron
18 operator category during uranium radiography and
19 a 37 percent higher dose during steel
20 radiography.

21 And for the other category of worker
22 that we called a layout man the doses were 20
23 percent higher.

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1 Now, parenthetically, and this last
2 bullet on this page is sort of a parenthetical
3 piece of information. The doses were quite small
4 in both cases, very, very small doses.

5 But we're talking about, for example,
6 45 percent, and 37 percent, and 20 percent of
7 higher for a very small number.

8 In any event, although the doses were
9 small in both cases SC&A recommended the use of
10 the more claimant-favorable numbers.

11 So here is the resolution of that
12 finding.

13 First of all, the NIOSH response to
14 SC&A. NIOSH, DCAS indicated that because the
15 neutron doses are small it really is not
16 necessary to assign all four energy intervals
17 proposed by SC&A.

18 They proposed, rather, to use one
19 energy interval, the 2 to 20 MeV range. In this
20 particular case then that would result in a
21 claimant-favorable simplification.

22 SC&A pointed out that for certain
23 organs the 2 to 20 MeV range was not claimant-

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1 favorable. And they pointed out that the use of
2 a zero to 10 keV range would be more favorable
3 when all organs are considered.

4 That is, if you're going to select
5 just one range that would be the more claimant-
6 favorable one to use.

7 And NIOSH agreed with this approach
8 and the Work Group concurred.

9 So with this agreement then the Work
10 Group voted to close or to recommend closure of
11 that finding.

12 Now let's go to finding 10. The
13 original finding addressed the use of effective
14 doses from hypothetical residual radiation after
15 betatron shutdown.

16 The concern raised was that no dose
17 conversion factors were provided in the Rev 2.

18 Also, Rev 2 used air kerma and
19 provided dose conversion factors. But SC&A
20 pointed out that the dosimetric quantity was not
21 identified as air kerma which led to some
22 ambiguity as to which dose conversion factors
23 were to be used.

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1 Also it was pointed out that since the
2 residual radiation was hypothesized to have an
3 energy of 30 keV. The maximum dose conversion
4 factor rather than the average for the range zero
5 to 30 keV should be used.

6 So here is the resolution for finding
7 10 that was proposed in our meeting. NIOSH did
8 review the dose conversion factors and realized
9 that the appropriate value would be that of a 30
10 keV mono-energetic photon rather than the zero to
11 30 keV range.

12 The 30 keV mono-energetic dose
13 conversion factor corresponds to the maximum dose
14 conversion factor for that range.

15 And then using the 30 keV dose
16 conversion factor that changes the limiting
17 exposure scenario for the skin of the hands and
18 the forearms, and as a result the table 9 values
19 in Appendix BB will change to the betatron
20 operator values instead of the layout man for
21 1964 to '66.

22 And then some additional points on
23 this resolution. Based on the dose conversion

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1 factor discussion NIOSH recommended the following
2 changes in Appendix BB. That should say Appendix
3 BB instead of B.

4 One, change the footnote of table 8
5 and the text on page 15 from less than 30 -- or
6 that would be zero to 30 basically -- change that
7 to 30 keV.

8 Change the betatron operator dose
9 values for the last three years. That's 1964 to
10 '66 in table 9. And the appropriate values were
11 provided.

12 Change the footnote for table 9 to
13 indicate 30 keV. And change the paragraph
14 following table 9 to reflect those changes.

15 So a lot of this is changing the
16 selection of the energy value, and then making
17 the appropriate changes in the wording.

18 SC&A agreed to these changes and the
19 Work Group concurred and then voted that this
20 item should be closed.

21 Now, the final slide and the one I'm
22 showing you here is a corrected slide. The one
23 that you might have received in the initial

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1 distribution, and in fact the one on the tables
2 here in the room are incorrect.

3 The initial draft that was distributed
4 and which appeared on the website had two
5 recommendations.

6 The second one on your slide if that's
7 the one you're looking at, but not the one shown
8 here in the room.

9 But if you're looking at the slide
10 that was distributed just remove that second
11 recommendation. That second recommendation when
12 I distributed this I did receive a note from
13 [Identifying information redacted] who
14 questioned the appropriateness and correctness of
15 that second recommendation.

16 And after reviewing his comments I
17 agreed that the second recommendation that I had
18 included which was inferred from the Work Group's
19 action but was not an actual action should be
20 removed.

21 So, the recommendation is the single
22 one here that the Work Group, TBD 6000 Work Group
23 recommends that the Advisory Board on Radiation

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1 Worker Health approve the proposed resolution and
2 closure of all findings for the revision of
3 Appendix BB.

4 And in essence that is closing the
5 issues raised on the review of Rev 2.

6 Now, keep in mind that Rev 3
7 subsequently was issued and there was a question
8 raised on Rev 3 by SC&A.

9 After we have a chance for questions
10 here, Mr. Chairman, it might be appropriate to
11 ask perhaps Dave Allen if he's on the phone or
12 Jim Neton here if they have had a chance to look
13 at SC&A's comments and if they have a response.

14 I'd be pleased to answer any questions
15 first if that's appropriate.

16 CHAIRMAN MELIUS: Why don't we start
17 with any questions for Paul. Board Members?
18 Yes, Gen.

19 MEMBER ROESSLER: On your slide that
20 has finding 1 I have a question, I think.

21 I saw a keV in there that I thought -
22 - okay, in the third bullet, SC&A pointed out
23 that for certain organs the 2 to 20 MeV ranges

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1 was not claimant-favorable.

2 They noted use of the zero to 10 keV
3 range. Is that right?

4 MEMBER ZIEMER: I believe that is
5 correct. I believe I quoted this from SC&A's
6 report.

7 Let's see. I don't know if Bob
8 Anigstein is on the phone, but I believe I quoted
9 this from the report. I did ask Bob to review
10 these slides and I believe he was comfortable in
11 this.

12 DR. ANIGSTEIN: This is Bob
13 Anigstein.

14 MEMBER ZIEMER: Bob's on the phone.
15 Bob, can you answer that? I think I have that
16 correct.

17 DR. ANIGSTEIN: Could you restate the
18 question?

19 MEMBER ZIEMER: Yes. It's the slide
20 called Resolution for Finding 1.

21 DR. ANIGSTEIN: Okay, I have the
22 slide.

23 MEMBER ZIEMER: The third bullet, Dr.

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1 Roessler was asking whether it was the use of the
2 zero to 10 keV range.

3 I told her I thought that was correct.

4 DR. ANIGSTEIN: That is entirely
5 correct. That gives you the highest neutron
6 dose.

7 MEMBER ZIEMER: It gave the highest
8 value.

9 MEMBER ROESSLER: Okay.

10 DR. ANIGSTEIN: Correct. For all the
11 organs.

12 MEMBER ZIEMER: For all organs. Yes.
13 Thanks, Bob.

14 Josie Beach has a question.

15 MEMBER BEACH: In our paperwork that
16 we were given there's the short four page and it
17 has that explanation. Just if somebody wanted
18 to look at it, it's there.

19 MEMBER ZIEMER: I don't know if your
20 mic was one. Did you all hear that?

21 MEMBER BEACH: Yes, well, Ted
22 distributed it. It's just the four-page document
23 that came with -- anyway, it explains that

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1 paragraph.

2 MEMBER ZIEMER: Thank you. Mr.
3 Chairman, do you wish to have the Board act on
4 the recommendation at this point? Or did you
5 want to ask?

6 That's separate from our
7 recommendation also.

8 DR. NETON: The one comment that was
9 made by SC&A was that the ambient dose equivalent
10 for neutron dose, the dose conversion factor was
11 not specified in the table.

12 And we went back and looked at that,
13 and that has not been in there for the past few
14 revisions. We did go back and look at the way
15 we're calculating the doses and we are using
16 ambient dose equivalent as SC&A noted in their
17 PER-57.

18 So it's really a matter of
19 clarification. It's not a technical issue.
20 It's just a matter of those tables.

21 It would certainly be clearer to do
22 that, but I'm not sure it warrants a complete
23 revision of the document since we are using the

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1 correct units at this time.

2 Maybe in a future revision we could
3 put that in there, but that's our position.

4 MEMBER ZIEMER: Well, the
5 recommendation is to close findings 1 and 10.
6 The Work Group recommends that those be closed
7 which completes the issues relating to Rev 2.

8 I think I heard Jim say that Rev 3,
9 the concern raised by SC&A is actually the way
10 they are doing it anyway.

11 But whether or not that needs to be
12 revised in the wording, that's an issue that the
13 Work Group has not dealt with.

14 And at the time when we were acting on
15 this there was no Rev 3. We had expected that a
16 Rev 3 would be issued.

17 Basically for the Work Group the
18 issues have been closed.

19 CHAIRMAN MELIUS: Okay. So we have a
20 motion from the Work Group that all these
21 findings have been resolved and closed.

22 Gen, did you have a comment first?
23 Okay. No.

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1 So I think we -- any further
2 discussion? If not I think we can do this on a
3 voice vote.

4 All in favor of accepting the Work
5 Group's recommendation say aye.

6 (Chorus of aye.)

7 CHAIRMAN MELIUS: Opposed?

8 (No response.)

9 CHAIRMAN MELIUS: Okay.

10 MR. KATZ: Let me just check on the
11 phone. When we started the meeting we didn't
12 have Dr. Poston. Are you on the line now? John
13 Poston?

14 Okay, so I'll show him. He's still
15 absent. But Bill Field, you're on the line,
16 right?

17 MEMBER FIELD: Yes.

18 MR. KATZ: Okay, good. Thank you.

19 CHAIRMAN MELIUS: Okay.

20 CHAIRMAN MELIUS: Okay. Thank you
21 very much, Paul.

22 So, next we hear from Genevieve
23 Roessler on Carborundum Company. SEC. This is

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1 an issue left over from our last meeting, I
2 believe.

3 **CARBORUNDUM COMPANY SEC PETITION**

4 **(1943-1976, Niagra Falls, NY)**

5 MEMBER ROESSLER: Thank you. Our
6 Work Group met again last week. We met on Monday
7 and then we had to have the slides put together
8 by Tuesday so that was a little bit quick.

9 But I want to thank Tom Tomes who's
10 the NIOSH lead on Carborundum for putting them
11 together, and also for Bob Anigstein who's the
12 SC&A lead for helping us out.

13 So my plan today then is in the first
14 seven slides which you've probably seen before
15 I'm going to review very briefly the site
16 information and then talk about the NIOSH
17 determination on the SEC Class.

18 Then in the next couple of slides I'm
19 going to select some slides from SC&A's first
20 review, especially on surrogate data, and that
21 will set the scene for the rest of our discussion.

22 Then I'll summarize our Work Group

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1 presentation at the November 30 Board meeting
2 because that's pertinent.

3 Even more pertinent I'll discuss after
4 -- I wasn't at the Board meeting but I read the
5 transcript, all 40 pages that related to this.

6 And I'll present to you as a review
7 the Board concerns about the situation at that
8 time.

9 And then in the remaining slides I'll
10 be discussing each area of concern and I'm going
11 to do it in the order of SC&A's most recent
12 review.

13 So, going to the next slide our Work
14 Group Members are myself as Chair, Greg Clawson,
15 Bill Field, and John Poston.

16 The Carborundum Plant was located in
17 Niagara Falls, New York. There were four periods
18 that we're interested in.

19 The AWE periods, the two operational
20 periods were from June to September 1943, and
21 then from 1959 to 1967.

22 The two residual periods were from
23 1943 to 1958, and 1968 to 1992.

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1 During the first operational period
2 from June to September 1943 the plant performed
3 experimental grinding of uranium metal using a
4 centerless grinder.

5 Uranium slugs were received in June
6 and return shipped in September 1943.

7 We know this was a very small
8 operation. Only one machine and probably only
9 operated for a couple of weeks.

10 Then in the second operational period
11 which was from 1959 to 1967 Carborundum
12 manufactured uranium and plutonium carbide
13 pellets for an AEC research program.

14 They also performed work during the
15 nineteen fifties that was not covered under
16 EEOICPA.

17 And at that time they were fabricating
18 nuclear fuel elements for commercial purposes.

19 So then they proposed in the evaluated
20 SEC Class -- the petitioner requested Class
21 Definition. All employees who worked in any area
22 of the Carborundum Company facility on Buffalo
23 Avenue, Niagara Falls, New York from January 1,

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1 1943 through December 31, 1976.

2 Now, why the difference in dates?
3 Well, you read there on the note because there
4 are no identified dose reconstruction
5 infeasibilities for this site NIOSH limited its
6 evaluation to the petitioner's Class period from
7 1943 to 1976, rather than to 1992 which as I
8 mentioned before was the end of the residual
9 period.

10 So, just to remind you the NIOSH
11 determination then was for the two operational
12 periods -- the date's up there -- and the two
13 residual periods, and included both internal and
14 external exposures -- is that dose reconstruction
15 is feasible.

16 They did identify that there was a
17 need to use surrogate data and that's something
18 we're going to be talking about.

19 Then SC&A reviewed NIOSH's
20 determination. And I'm going to use two slides
21 from our November 30 presentation that Dr.
22 Anigstein put together that I think will be
23 helpful to today's discussion.

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1 The first one -- and they're both on
2 the use of surrogate data from TBD-6000.

3 The first one, with regard to the
4 intakes from uranium aerosols. I'm not going to
5 go over the whole slide, but point out to you see
6 down there under satisfy ABRWH criteria I think
7 these are important to keep in mind because we
8 have the bullets there.

9 And you'll notice on this slide all of
10 the bullets were checked which meant according to
11 SC&A's findings that all criteria were met for
12 internal dose during this first operational
13 period.

14 However, on this slide, and this is
15 with regard to external exposure to uranium
16 metal.

17 And again if you go down on the slide
18 to the section satisfy Board criteria you'll see
19 this is -- we don't have all checks on it. There
20 are some X's there.

21 However, in spite of the fact that
22 there were some items that did not satisfy the
23 Board criteria the Work Group decided that this

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1 was not an SEC issue, that there are other source
2 terms available in TBD-6000.

3 So with regard to the SEC petition,
4 and this one is 00223 the Carborundum Work Group
5 reported results of the review of the petition in
6 the NIOSH evaluation to the Board as we said on
7 November 30.

8 They included slides in discussion on
9 SC&A's seven issues that they identified. Some
10 of them we pointed out were closed by the Work
11 Group and others were identified as Site Profile
12 issues.

13 Also pointed out was that SC&A
14 identified issues with the NIOSH selection of
15 dose rates from surrogate data for uranium work
16 also at that time were considered as Site Profile
17 issues.

18 So, the Work Group concluded that with
19 appropriate adjustments, and I want to underline
20 that, NIOSH can indeed reconstruct doses for the
21 proposed SEC Class.

22 And the Work Group moved that the SEC
23 petition be denied.

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1 Now, in retrospect when we think about
2 it, or certainly when I think about it the words
3 "appropriate adjustments" were not well defined.

4 And the Board pointed out that there
5 was a need for NIOSH to develop a new set of
6 surrogate data from TBD-6000.

7 The question also came up can the
8 criteria be met for this site. And you recall
9 the slide where we had the X's there.

10 And the Board also recommended that
11 they needed an example of dose reconstruction.

12 They emphasized also that there was a
13 need to make sure that the Site Profile issues
14 aren't actually SEC issues. And these are all
15 pertinent points.

16 So the motion was tabled with the
17 instructions that NIOSH should prepare these
18 appropriate adjustments, should tell us what
19 they're going to be doing.

20 And they did that. And you have a
21 paper that's available to you now so you can check
22 the details.

23 And then SC&A was to review these

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1 points. And that paper is also available.

2 So, the Work Group met again as I
3 mentioned last week.

4 So that's kind of the background
5 information. And now what I want to do is go
6 through a summary of not all the details, but a
7 summary of how all of these concerns were
8 addressed.

9 And I'm going to do it in the order
10 of the SC&A response paper because I think that's
11 the easiest to follow. And that's the next slide
12 actually.

13 So, with regard to the NIOSH
14 resolution on using surrogate data from TBD-6000
15 the first item was with regard to external
16 exposure to uranium metal and talking about the
17 updated methods.

18 So, for the first operational period
19 NIOSH used dose rates in TBD-6000 for a uranium
20 slug.

21 They then multiplied the dose rates by
22 10 to allow for dose from an array of the 10 slugs
23 that were handled at Carborundum.

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1 And they mentioned that the model
2 slugs were only slightly larger than the
3 Carborundum slugs.

4 Then for the second operational
5 period, again dealing with a source term and
6 using dose rates from TBD-6000, in this case with
7 regard to a uranium plate it was mentioned that
8 they're similar to the largest -- from TBD-6000,
9 similar to the largest batches processed at
10 Carborundum.

11 So, it was decided that these revised
12 dose estimates resolved these source term
13 discrepancies that relate to the Board criteria
14 for surrogate data.

15 I'll explain a little bit more in the
16 next slide.

17 With regard to the first AWE period
18 which I mentioned NIOSH provided updated external
19 doses from uranium slugs in 1943 for a more
20 appropriate exposure geometry provided in TBD-
21 6000. Kind of repeating myself there.

22 SC&A then concluded or concurred with
23 the photon doses, but commented that the beta

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1 doses may be overestimated.

2 So, we spent a good bit of time at the
3 Work Group discussing this. And NIOSH explaining
4 their rationale on SC&A agreed with the NIOSH
5 rationale for the beta dose estimates.

6 So with that the Work Group agreed
7 that doses in this particular category can be
8 estimated with sufficient accuracy.

9 So then going onto the second AWE
10 period NIOSH provided updated external doses from
11 uranium materials used in 1959 to 1967 for a more
12 appropriate exposure geometry provided in TBD-
13 6000.

14 SC&A agreed with the photon doses, but
15 commented that beta doses may be overestimated
16 based on a modeled 1 foot beta dose rate.

17 NIOSH then pointed out that actually
18 TBD-6000 beta dose rates incorporate actual
19 measured whole body dose rates as a function of
20 1 foot photon dose rates.

21 So, with that SC&A agreed that the
22 resolution of the approach on this is a Site
23 Profile issue.

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1 And the Work Group agreed that beta
2 dose rate can be estimated with sufficient
3 accuracy.

4 So that dealt with surrogate data
5 issues. In the next slide we're going to go into
6 some other concerns clarifying dose
7 reconstruction.

8 And the first one was on the
9 observations on the Monte Carlo simulations of
10 external dose from plutonium glove box worked.

11 SC&A provided comments on this and on
12 the geometry used, and on other input parameters
13 used in estimating external dose from plutonium
14 bearing materials used in 1961 to 1967. That was
15 the second operational period.

16 SC&A commented this was actually just
17 an observation in their review, and they agreed
18 during our Board meeting that there is enough
19 information to do dose reconstruction.

20 So the Work Group agreed that the
21 doses can be estimated with sufficient accuracy.
22 And they also agreed that this is a Site Profile
23 comment under review by NIOSH.

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1 So then the next slide is probably
2 maybe a little more interesting. And this had
3 to do with doses from the X-ray diffraction units
4 that workers used at Carborundum.

5 Before this recent review NIOSH wasn't
6 going to do dose reconstruction in this category
7 because they said the uranium doses were
8 bounding.

9 And then we just talked about uranium
10 doses. But a new approach had to be developed
11 because after the additional review by SC&A this
12 prompted -- which was prompted by lower estimates
13 for external dose in uranium processing areas.

14 Now, the X-ray diffraction dose
15 estimates by NIOSH may be higher than the dose in
16 the uranium work area. So oops. Something then
17 needs to be changed.

18 NIOSH had previously been prepared to
19 do dose reconstruction so they're now reverting
20 back to doing that.

21 However, with improvements on it I
22 think because during our Work Group meeting SC&A
23 reported information that they had gotten from a

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1 former worker. The former worker clarified where
2 the workers would stand when they were using
3 these units and how much time, the important
4 factor. Estimated how much time they would be
5 in the area.

6 So SC&A recommended an increase in the
7 exposure time that NIOSH had assumed.

8 SC&A also commented that NIOSH should
9 increase the correction factor applied to ion
10 chamber dose rate measurements.

11 So, then clarification improvement on
12 the time and the exposure. And then along with
13 those changes they recommended the use of more
14 appropriate low energy organ dose conversion
15 factors, final organ dose estimates they say will
16 be similar to the previous NIOSH estimates.

17 So it all comes down to, and we
18 discussed this during the Work Group meeting.
19 SC&A agreed with this approach. The Work Group
20 agreed then that dose can be estimated with
21 sufficient accuracy. And this was resolved then
22 as a Site Profile issue.

23 By the way, we'll have plenty of time

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1 I think for comments or questions at the end.
2 I've been kind of charging right through here to
3 get all the pertinent things out of the way.

4 Another item, and I'm including this
5 just for completeness.

6 There were still some comments because
7 a worker again questioned whether thorium was
8 present, and whether it should be looked at for
9 dose reconstruction.

10 NIOSH did provide additional response
11 on the potential for thorium contamination during
12 the second AWE operational period from earlier
13 and uncovered thorium work at the site.

14 But again, reassured us that the
15 available information that they have indicates
16 that thorium is not a significant source of
17 exposure during this period.

18 SC&A provided additional review and
19 agreed with the NIOSH conclusion, and the Work
20 Group agreed and closed this issue.

21 So, next slide and we'll go to medical
22 X-rays. More on dose reconstruction.

23 Again I wanted to complete, make sure

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1 we covered every issue here.

2 NIOSH provided updated responses for
3 reconstruction of medical X-rays during the AWE
4 operational periods.

5 SC&A provided additional review. And
6 on this slide I say and agree that NIOSH
7 appropriately assign doses for medical X-rays for
8 each year of employment during the two AWE
9 periods.

10 Actually, we prepared this slide a
11 little bit in advance, but Bob Anigstein verified
12 in an email that came through I think it was just
13 yesterday that he actually can replicate these
14 dose calculations.

15 So we're standing by this comment that
16 SC&A agrees in concept. I think Bob found a few
17 kind of minor calculation errors. But he told
18 me in an email that he agrees in concept that
19 NIOSH can do the dose reconstruction here.

20 So then the Work Group agreed that
21 NIOSH could reconstruct doses from medical X-rays
22 with sufficient accuracy and close this issue.

23 Another example that I think is one

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1 that rises kind of high on the list because this
2 was an example of where we used the term
3 appropriate adjustments before.

4 And this one did need to be clarified.
5 And this was with regard to external dose from
6 uranium contamination.

7 NIOSH provided resolution of the
8 factors to use for estimating dose from uranium
9 contamination.

10 What they had done before was used old
11 data from EPA's federal guidance report 12. Now
12 as recommended by SC&A they're doing the external
13 dose estimates using conversion factors from TBD-
14 6000.

15 So this was reviewed by SC&A and they
16 have agreed with the updated method, and the Work
17 Group has agreed we can close this issue.

18 We're getting close here. On the next
19 slide on the example dose reconstructions you
20 remember I mentioned that the Board had said it
21 would be good to have some data to look at to see
22 if they can verify -- if SC&A can verify the dose
23 reconstructions.

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1 Originally SC&A had noted that they
2 had some problems with duplicating these so NIOSH
3 provided a lot of tables, updated dose intake
4 tables, and implementing instructions. New dose
5 reconstructions were provided.

6 Dr. Anigstein I think spent a lot of
7 time going over this. And again we received
8 comments from him just a few days ago.

9 He agrees that he can now duplicate -
10 - he did find a few minor errors, but actually
11 overall agrees that he can verify the dose
12 calculation.

13 So the Work Group agreed that dose
14 reconstructions can be reconstructed with
15 sufficient accuracy using these updated methods.

16 So now I've covered a lot of material
17 and I'm hoping that with this and especially with
18 the two papers that you have gotten that this
19 summary of our discussions and resolution is
20 enough information.

21 At last week's Work Group meeting we
22 confirmed our conclusions that we presented to
23 you before, that the Work Group concluded that

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1 NIOSH can reconstruct doses with sufficient
2 accuracy for the proposed SEC Class.

3 The Work Group moves that the SEC
4 petition 00223 be denied.

5 I covered a lot of material and so
6 this next slide which says questions on it is
7 probably quite pertinent.

8 And fortunately I know Dr. Anigstein
9 is on the phone and I'm hoping Tom Tomes is on
10 the phone.

11 So with their help we'll answer any
12 questions or take any comments.

13 CHAIRMAN MELIUS: Okay. Thank you
14 very much, Gen. I was going to say our comment
15 would be that was too much information. We can't
16 handle it all at one time. Just spread it out.

17 But no, it was very, very thorough.
18 And also just to clarify we actually --
19 originally I think the concern of the Board was
20 we were looking for more information from NIOSH
21 in terms of their recommendation and their
22 support for that recommendation.

23 So it wasn't a criticism of the Work

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1 Group, it was a concern that we didn't have
2 adequate -- NIOSH hadn't provided us adequate
3 information.

4 MEMBER ROESSLER: We understand.

5 CHAIRMAN MELIUS: So questions for
6 the presentation. Paul.

7 MEMBER ZIEMER: Gen, could you
8 clarify on the X-ray diffraction workers, were
9 those diffraction units apparently not closed
10 systems as they're used today.

11 Those are open systems? Are we
12 talking about scatter? Not X-ray diffraction.

13 MEMBER ROESSLER: Yes, I think we're
14 talking about scatter. And I'm not sure about
15 your question, but I'm sure that Tom Tomes who's
16 on the phone would be able to answer that.

17 I would assume back then they probably
18 weren't, but let's hear from him.

19 MEMBER ZIEMER: Were those ion
20 chamber measurements done at Carborundum or are
21 they using -- was this part of the surrogate data
22 where they're taking typical ion chamber scatter
23 measurements and using a correction factor.

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1 MEMBER ROESSLER: Tom, are you on the
2 phone?

3 MEMBER ZIEMER: I'm trying to
4 understand where the numbers came from.

5 MR. TOMES: Yes, this is Tom. Yes,
6 they were taken from measurements from another
7 facility.

8 MEMBER ZIEMER: He said they were from
9 measurements. I didn't understand whether they
10 were at Carborundum or were somewhere else.
11 General scatter from that type of X-ray.

12 MR. TOMES: No, they were not taken
13 from Carborundum. They were taken from another
14 reference.

15 MEMBER ZIEMER: It sounded like he
16 said they were taken at Carborundum. Is that
17 correct, Jim?

18 DR. NETON: This is Jim. Maybe you
19 can hear me a little bit better.

20 There were surveys at another
21 facility, I think it was a state department of
22 health did some surveys. Is that Lubano? Is
23 that the Lubano surveys?

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1 MEMBER ZIEMER: Oh, Joe Lubano?

2 DR. ANIGSTEIN: This is Bob Anigstein
3 if I could weigh in on this.

4 This was done -- there was a paper
5 published in Health Physics by Joe Lubano who was
6 at that time with the Pennsylvania Department of
7 Radiation Protection, or some similar name like
8 that.

9 And there were a series of readings at
10 different sites, scattered radiation at the edge
11 of the work table.

12 And what NIOSH did was it took the
13 highest of those that were listed which was 2 MR
14 per hour and adopted that as the basis for their.

15 DR. NETON: I believe it had the same
16 target as well, is that right, Bob?

17 DR. ANIGSTEIN: Yes, it was a copper
18 target. And there was a worker that was
19 interviewed by -- whom I interviewed and was also
20 part of an interview by a member of the ORAU Team
21 who confirmed that a copper target was used in
22 the XRD apparatus at Carborundum.

23 DR. NETON: Thank you.

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1 CHAIRMAN MELIUS: Any other questions
2 for the Work Group? Yes, Henry.

3 MEMBER ANDERSON: Thank you very
4 much. It was very, very interesting.

5 And I just see throughout this for
6 multiple different kinds of exposures the term of
7 -- I'm always bothered by sufficient accuracy.

8 And to get a good sense of that better
9 for some of the exposures, your ability to
10 accurately predict what it is.

11 But here, what did you use for each of
12 these to say it's sufficient? Now, in the
13 medical X-rays I got a better sense of that, but
14 some of these others, and these are kind of
15 cumulative kind of things that you don't really
16 have measurements from the site.

17 And certainly on the slugs and things
18 like that there's quite a bit of data from
19 surrogate sites, but for some of the others it
20 might be less.

21 I'm just curious as to did you
22 consider the sufficiency that these were all
23 comparably sufficient, or just that it wasn't an

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1 unrealistic gross overestimate or underestimate
2 kind of a thing. How did you go about from all
3 of these various things? Was it mostly just a
4 subjective kind of assessment that, well, okay,
5 this is the way they can do it.

6 MEMBER ROESSLER: Well, that's
7 probably the way I've been expressing whether we
8 have met the criteria, by using the words
9 sufficient accuracy.

10 But it applied to each situation. And
11 we went through the NIOSH presentation as to how
12 they were going to do it.

13 And then it was SC&A who determined
14 that, yes, that they agreed with the approach.
15 And then I used the word sufficient accuracy.
16 And it got rather repetitive, but it was for each
17 individual situation.

18 MEMBER ANDERSON: Thanks. Then my
19 second question was -- and it all came kind of
20 late, but what was the available thorium
21 information.

22 MEMBER ROESSLER: You know, that I
23 didn't have in the slide. And maybe Jim Neton

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1 can remind us.

2 What was the additional information
3 that came up at the -- or maybe Bob who's on the
4 phone would remember.

5 I think you just verified again the
6 reasons you determined there was no thorium
7 present? I don't remember, but I'm sure somebody
8 does.

9 MEMBER ANDERSON: I mean, the term
10 available. You could have nothing available, so
11 what was available.

12 DR. NETON: The source term started
13 off because it was non-covered exposure when it
14 was used.

15 But the question was given the
16 residual contamination that was there how much of
17 that could have been related to the thorium
18 exposure that would have to be included.

19 And what we ended up doing, and SC&A
20 confirmed, that if you take and deplete the
21 source term over time it will reduce down in the
22 residual period to such a low level that it would
23 be of no consequence for exposure.

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1 MEMBER BEACH: Yes, I have three
2 questions and I think, NIOSH, this one will be
3 for you.

4 One of my first concerns with
5 Carborundum was that NIOSH uses the templates to
6 reconstruct some of their dose. Is there -- do
7 those change frequently? I know that template
8 keeps coming up and I was curious about the use
9 of those, and if it played any part in this.

10 DR. NETON: I'm not sure what you're
11 referring to as templates, but we do use standard
12 approaches for a lot of these facilities where
13 sort of these one size fits all models.

14 MEMBER BEACH: Yes, the no Site
15 Profile.

16 DR. NETON: Yes, I'm not sure what the
17 question is.

18 MEMBER BEACH: Well, I guess I'm
19 curious about the templates because we haven't
20 reviewed them, and did that come into play in any
21 of these models.

22 DR. NETON: You know, Tom Tomes might
23 be able to help me out here, but I don't know if

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1 we actually have a template for Carborundum at
2 this point.

3 MR. TOMES: This is Tom. We had a
4 template that was in use prior to the SEC
5 petition.

6 And in the review of the petition and
7 gathering additional information, the change in
8 the covered period that template is obsolete now.

9 MEMBER BEACH: Okay. So it has
10 changed.

11 MR. TOMES: It's in flux pending the
12 outcome of this review.

13 DR. NETON: Right. It will be
14 changed to incorporate all that we've just
15 discussed.

16 MEMBER BEACH: Okay. I guess that's
17 my concern with the templates is because I know
18 we don't review them and they can change. And
19 he just said this one was obsolete from the
20 earlier.

21 DR. NETON: Well, that's because of
22 all the work we've done.

23 MEMBER BEACH: I understand. That

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1 helps.

2 The other one is on the surrogate data
3 criteria. Gen, I know you kind of combined two
4 sets. Was all the surrogate data criteria met,
5 and at the end of the --

6 MEMBER ROESSLER: Were all the
7 criteria met?

8 MEMBER BEACH: Yes. Per the
9 surrogate data used at the site.

10 MEMBER ROESSLER: Yes. And we
11 concentrated on that in the second approach in
12 the Work Group meeting making sure that we asked
13 the question, and of course depending on SC&A's
14 answer to us did we now meet all those criteria
15 and the answer is yes.

16 MEMBER BEACH: I just wanted to make
17 sure I understood that.

18 And then I know Bob had mentioned on
19 his paper prior to your last Work Group meeting
20 that the dose reconstruction examples.

21 Did SC&A ever get a chance to do any
22 of those, or is that?

23 MEMBER ROESSLER: Oh yes. Yes.

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1 MEMBER BEACH: You did. Okay.

2 MEMBER ROESSLER: This was posted on
3 the Board site. And Bob Anigstein spent most of
4 the week going over that.

5 MEMBER BEACH: Okay. And that was
6 what you were discussing where there were just
7 slight differences. Okay, I just wanted to make
8 sure I was clear on those.

9 MEMBER ROESSLER: Some minor
10 calculation errors. But in concept he agreed
11 that he could verify that.

12 MEMBER BEACH: Thank you.

13 CHAIRMAN MELIUS: Any other
14 questions? Bill Field? Okay.

15 So I believe we have a recommendation
16 from the Work Group.

17 MEMBER ROESSLER: Well, we have the
18 motion on the table.

19 CHAIRMAN MELIUS: We have our
20 resident parliamentarian here so he can guide us
21 through the process. So we just have to un-table
22 it which we need a motion to un-table it.

23 MEMBER ROESSLER: So I assume you know

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1 how to un-table it.

2 CHAIRMAN MELIUS: Yes.

3 MEMBER ROESSLER: Okay. Then would
4 you un-table it.

5 CHAIRMAN MELIUS: And so we have to
6 vote it. So all in favor of un-tabling the
7 original motion to -- actually to accept NIOSH's
8 recommendation that this not become an SEC should
9 indicate by saying aye.

10 (Chorus of aye.)

11 CHAIRMAN MELIUS: And now we can move
12 ahead and we can -- any further discussion on the
13 original motion.

14 The motion is to accept NIOSH's
15 recommendation that this SEC petition be denied.

16 MEMBER MUNN: You have a second.

17 CHAIRMAN MELIUS: What? Oh, I'm
18 sorry. I don't have it listed here. Are the
19 petitioners?

20 MR. KATZ: Yes, we need the
21 petitioners.

22 CHAIRMAN MELIUS: Okay. I didn't see
23 anybody listed here, that's why I was confused.

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1 Okay, I apologize.

2 Would the petitioners like to make
3 comments?

4 MS. KNAPP: Yes. Can you hear me
5 okay? Hello?

6 CHAIRMAN MELIUS: Go ahead.

7 MS. KNAPP: Can you hear me okay?

8 CHAIRMAN MELIUS: Now we can.

9 MS. KNAPP: Okay. First of all I'd
10 like to say good morning to everyone. My name
11 is Janice Knapp. I am one of the petitioners.

12 I am speaking for my brother
13 [identifying information redacted] as well today
14 as he is in the hospital with stress-related
15 issues.

16 We feel that this has gone on long
17 enough, and according to the rules we are asking
18 you to do the right thing and vote to add this or
19 part of this petition to the SEC.

20 We feel the type of data used is
21 questionable because we understand you are
22 calling it surrogate data.

23 But at the same time we would like to

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1 thank everyone for all the time and hard work
2 that you have put in on this petition for us.

3 But whatever decision you may make we
4 are going to continue this. But we would just
5 like to say thank you and -- but we will be
6 continuing on.

7 CHAIRMAN MELIUS: Okay. Thank you.

8 MS. KNAPP: You're welcome.

9 CHAIRMAN MELIUS: So I think we have
10 a motion. Any further discussion? If not, Ted,
11 call the roll.

12 MR. KATZ: Dr. Anderson.

13 MEMBER ANDERSON: Yes.

14 MR. KATZ: Ms. Beach.

15 MEMBER BEACH: Yes.

16 MR. KATZ: Mr. Clawson.

17 MEMBER CLAWSON: Yes.

18 MR. KATZ: Dr. Field.

19 MEMBER FIELD: Yes.

20 MR. KATZ: Dr. Kotelchuck.

21 MEMBER KOTELCHUCK: Yes.

22 MR. KATZ: Dr. Lemen is absent. I
23 will collect his vote after this meeting. Dr.

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1 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, are you on the
8 line now with us? Okay, Dr. Poston is absent.
9 I'll collect his vote after. And Dr. Richardson
10 is absent.

11 Dr. Roessler?

12 MEMBER ROESSLER: Yes.

13 MR. KATZ: Mr. Schofield.

14 MEMBER SCHOFIELD: Yes.

15 MR. KATZ: Ms. Valerio.

16 MEMBER VALERIO: Yes.

17 MR. KATZ: And Dr. Ziemer.

18 MEMBER ZIEMER: Yes.

19 MR. KATZ: So, with the votes that
20 have been cast the votes are unanimous and
21 sufficient so the motion passes. Thank you.

22 CHAIRMAN MELIUS: Okay, thank you.

23 Okay. We have a break scheduled now. We're

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1 running ahead of time. I have 5 after 10. So I
2 would suggest that we take a half hour break and
3 start again at 10:35. And we'll have a Work
4 Group session then.

5 MR. KATZ: And Board Members, you
6 might want to mute your phones.

7 (Whereupon, the above-entitled matter
8 went off the record at 10:05 a.m. and resumed at
9 10:54 a.m.)

10 CHAIRMAN MELIUS: Okay, we'll get
11 restarted. If anybody finds our missing Board
12 Member please return him to us. Nice person, but
13 since he retired, I don't know. State health
14 department.

15 MR. KATZ: Let's just check on the
16 line and see, do we have Bill Field back?

17 MEMBER FIELD: Yes, I'm back.

18 MR. KATZ: And John Poston, have you
19 joined us?

20 (No response.)

21 MR. KATZ: Okay, still no John. And
22 Loretta Valerio, are you with us?

23 MEMBER VALERIO: Yes.

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1 MR. KATZ: Super. Thank you. So
2 we're set to go there.

3 **BOARD WORK SESSION**

4 CHAIRMAN MELIUS: So, here he is.
5 Well, Henry will chair those three Work Groups.

6 So, just for some scheduling purposes
7 and so forth I'm hoping that we can complete any
8 Board work session tasks today. So that the
9 Board work session that Ted scheduled for
10 tomorrow will -- may not be needed. Anyway, just
11 for reference.

12 We have a number of items to cover.
13 I think we'll be able to do it.

14 We have the reminder of everybody,
15 your lunch assignment is looking over the public
16 comments from our last meeting.

17 And if you have any questions or
18 concerns about the responses we'll review those
19 in the Board work session later this afternoon.

20 So, let's start with dates for future
21 meetings and locations.

22 I think the first item would be the

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1 location for the August meeting.

2 MR. KATZ: Right, and just to be clear
3 in your notes, Board Members, I have the wrong
4 date here because I have August 17. It's of
5 course not that. It's the 23rd and 24th. That's
6 the summer Board meeting.

7 CHAIRMAN MELIUS: And we have a
8 teleconference when?

9 MR. KATZ: We have then following that
10 a teleconference -- oh, before that we have --
11 let me find the date. Hold on one second.

12 The 23rd and 24th of August is in
13 person. That we're going to decide location.

14 But we have a teleconference prior to
15 that, let's see. It is June 6. June 6. That's
16 11 a.m. as usual.

17 CHAIRMAN MELIUS: So, location. Any
18 suggestions?

19 MR. KATZ: Right. And so, well one
20 thing just to remind, we had hoped to have LANL
21 ready, a new, an update for LANL ready for this
22 meeting. It didn't quite make it under the bar,
23 but I gather in April you'll be getting a report.

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1 It's expected.

2 So, anyway, that's one location that
3 has new material of interest.

4 And I'm not sure, there may be more
5 work than just that that gets ready between now
6 and then, right, for LANL? I don't know what
7 else is on the --

8 MR. RUTHERFORD: I think the only
9 thing we have planned is the addendum, the actual
10 report out for the years '95 to 2005 I think.

11 MR. KATZ: Right, okay. And the Work
12 Group has to work through that so that we can
13 have the Work Group meeting working on that
14 between April and August.

15 MEMBER BEACH: Ted, we also have some
16 Site Profile issues that we could add to that
17 topic as well for a meeting.

18 MR. KATZ: Yes. So anyway. So, LANL
19 as a location.

20 CHAIRMAN MELIUS: Where would you
21 propose for the location? The city.

22 MR. KATZ: Oh. So, well Santa Fe has
23 been the go-to one.

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1 CHAIRMAN MELIUS: Yes. But you think
2 you'll get a government rate hotel in the summer?

3 MR. KATZ: We've done it before,
4 actually, we've done it.

5 CHAIRMAN MELIUS: In Santa Fe?

6 MR. KATZ: Yes, we have. But if we
7 can't, if that doesn't work out we can always go
8 for Albuquerque. There will be a hotel in
9 Albuquerque.

10 CHAIRMAN MELIUS: Other options?

11 MR. KATZ: So that's one. Another
12 possibility is -- well, we like to go to Idaho in
13 the summer when you can get through the ice so
14 there's always that.

15 CHAIRMAN MELIUS: You mean the one-
16 week window when there's not six feet of snow on
17 the ground?

18 MR. KATZ: Exactly, exactly.

19 CHAIRMAN MELIUS: When Brad gets to
20 do service on a snowmobile.

21 MR. KATZ: So we have a presentation
22 today on INL, an addendum being presented.

23 And then there have been SC&A reports

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1 too. So the Work Group will have plenty of meat
2 to chew on between now and then.

3 CHAIRMAN MELIUS: I think the
4 question I'm trying to get at is where would
5 public input be useful. Not just when we're
6 finishing up something like New Mexico, or Idaho
7 we've been to a lot. I think we've talked to
8 everybody in Idaho Falls.

9 Though we probably could use some for.
10 It's a big site.

11 MEMBER BEACH: Well, the last time we
12 met Savannah River was on the agenda for a
13 possible site. I didn't know if we'd be ready
14 for anything there.

15 MEMBER ZIEMER: What's going on at Oak
16 Ridge?

17 MEMBER SCHOFIELD: I think Oak Ridge
18 would be a good place given all the facilities
19 you've got there and all the work that's gone on.
20 I think there's still a lot of outstanding
21 questions for that area.

22 MEMBER BEACH: We haven't been there
23 for a while.

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1 CHAIRMAN MELIUS: Any other
2 candidates? So no, I think we -- why don't we
3 think it over and come back after lunch. Our
4 post lunch Work Group meeting we'll tentatively
5 make a decision.

6 MR. KATZ: Okay. And then we have
7 scheduling to do quite a ways out of course as
8 always.

9 So, we need to schedule another
10 teleconference. We have -- the last meeting
11 scheduled is a December meeting of the Board at
12 the end of this year.

13 And that puts us then to approximately
14 the weeks of February 19 through the 26th we're
15 looking for a teleconference date.

16 February 19 or 26. We often go for
17 the Wednesdays but there's no -- it doesn't
18 matter.

19 So let's look at the 19th, see if that
20 week is. Look at the week entire as whether that
21 week is a problem for folks or not.

22 That's a teleconference. That's an
23 11 a.m. teleconference.

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1 The 21st is a Wednesday of February.
2 So that's 2018.

3 MEMBER BEACH: So the 19th is a
4 Monday.

5 MR. KATZ: The 19th is a Monday, yes.
6 How's the 21st for folks? And on the line too?

7 CHAIRMAN MELIUS: Nobody's planning
8 spring break in Fort Lauderdale that week?

9 MR. KATZ: Bill, is the 21st of
10 February?

11 MEMBER FIELD: Yes, that's good.

12 MR. KATZ: And Loretta?

13 MEMBER VALERIO: That works for me.

14 MR. KATZ: Everyone in the room? I
15 have heard no objections yet. Okay. Going,
16 going, gone. The 21st, 11 a.m. February, 2018.
17 Eastern.

18 Okay. And then for the next face to
19 face following that approximately the week of
20 April 9, that's sort of the ballpark.

21 So, first let's take a look at that
22 week, see how that works for folks. April 9,
23 2018.

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1 That's the week. So yes, we usually
2 prefer Tuesday/Wednesday or Wednesday and
3 Thursday, but let's see if there's any problems
4 with that week to start with.

5 CHAIRMAN MELIUS: There's a potential
6 problem. I'd be better off with
7 Wednesday/Thursday.

8 MR. KATZ: Okay. So how's
9 Wednesday/Thursday for everyone and on the line
10 too?

11 CHAIRMAN MELIUS: April 11 and 12.

12 MR. KATZ: Yes, April 11-12. Okay?
13 That's face to face.

14 Wanda, is that okay? Okay. Okay,
15 and I'll send a note to the missing Board Members.
16 They're stuck with it.

17 Do we want to look at the next date
18 in case that's a problem for our absentee
19 Members?

20 MEMBER ZIEMER: Do we have a December
21 day?

22 MR. KATZ: Yes, I'll give you that.
23 I'll go back to that in a second, Paul.

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1 But so look at the next week though,
2 the week of April 16. Just let me know, does
3 that week look clear for folks?

4 MEMBER BEACH: Which week? I'm
5 sorry.

6 MR. KATZ: So, the week of April 16,
7 2018. Anyone have trouble with that week?

8 CHAIRMAN MELIUS: Not that I know of,
9 no. Later in the week would be better for me.

10 MR. KATZ: Okay. So, anyway, the
11 Wednesday and Thursday of that week will be a
12 second option if we need it. That would be I
13 guess the 18th and 19th.

14 That takes care of that.

15 MEMBER BEACH: What was the December
16 date?

17 MR. KATZ: Sorry, yes. Paul had
18 asked as well. December 13 through 14.

19 MEMBER BEACH: Thank you.

20 MR. KATZ: This year.

21 CHAIRMAN MELIUS: If you'd like a
22 longer meeting we can travel to Idaho and spend
23 the winter.

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1 MEMBER BEACH: I heard Hawaii was an
2 option.

3 MR. KATZ: Right, correct. That's
4 the face to face.

5 CHAIRMAN MELIUS: If the Board
6 approves. I heard a couple of Board Members
7 would be on a cruise. They would like us to join
8 them.

9 MEMBER BEACH: That will be a short
10 call. That's during the Board call.

11 MEMBER ZIEMER: Is there a phone call
12 between August and December?

13 MR. KATZ: Yes, we have a
14 teleconference October 4. October 4,
15 teleconference.

16 CHAIRMAN MELIUS: October 4?

17 MR. KATZ: Yes, teleconference.

18 CHAIRMAN MELIUS: It's going to have
19 to be changed I think. I have to chair another
20 meeting that day.

21 MR. KATZ: Right now it's October 4
22 but Dr. Melius is saying --

23 (Simultaneous speaking.)

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1 MR. KATZ: -- we have a conflict.

2 MEMBER BEACH: You could do it on the
3 3rd.

4 CHAIRMAN MELIUS: The 3rd is fine.

5 MR. KATZ: Okay. How's October 3rd?
6 How's the 5th? October 5 is okay for everyone
7 else does Josie doesn't count?

8 MEMBER BEACH: Not the 2nd. Okay,
9 fine.

10 MR. KATZ: All right. October 5.
11 So, Bill, you got that, and Loretta?

12 MEMBER VALERIO: Yes.

13 MR. KATZ: Okay. That's for a
14 teleconference.

15 MEMBER VALERIO: This is Loretta. So
16 after August the next full Board meeting would be
17 in November, correct?

18 MR. KATZ: Loretta, were you asking
19 something?

20 CHAIRMAN MELIUS: Can you repeat
21 that, Loretta?

22 MEMBER VALERIO: Can you hear me?

23 MR. KATZ: Yes.

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1 MEMBER VALERIO: Okay. The next full
2 Board meeting after August is November, correct?

3 MR. KATZ: The next full Board meeting
4 is December.

5 MEMBER VALERIO: December. Okay.

6 MR. KATZ: Thirteen through fourteen.

7 MEMBER VALERIO: Okay, thank you.

8 CHAIRMAN MELIUS: If we held the Board
9 meeting in New Mexico in August do you think we
10 would get significant attendance interest in
11 terms of people --

12 MEMBER VALERIO: I have a very bad
13 connection. I need you to speak up just a little
14 bit.

15 CHAIRMAN MELIUS: Is this better?

16 MEMBER VALERIO: Much better, thank
17 you.

18 CHAIRMAN MELIUS: The Chair learned
19 how to turn on the microphone after five hours
20 here, three hours.

21 Do you think that if we have a Board
22 meeting in New Mexico in August that we would get
23 significant attendance and interest?

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1 MEMBER VALERIO: I think if there's
2 ample time to advertise the meeting I think we
3 can.

4 CHAIRMAN MELIUS: Okay. Okay, thank
5 you.

6 MEMBER SCHOFIELD: I think on that we
7 might have to also look at Albuquerque hotels.
8 That time in Santa Fe will probably be full. It
9 is kind of right at the end of the peak of the
10 tourist season.

11 CHAIRMAN MELIUS: A number of years
12 ago I attempted to stay in Santa Fe during August
13 on vacation and Motel 6 was going for about \$400
14 a night.

15 MEMBER SCHOFIELD: That's why I'm
16 saying we might want to consider Albuquerque.

17 CHAIRMAN MELIUS: Needless I did not
18 stay in Santa Fe.

19 MR. KATZ: So and Loretta,
20 attendance, if it were in Albuquerque would that
21 still work?

22 MEMBER VALERIO: Not as well as in
23 Santa Fe.

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1 MR. KATZ: Okay. Thanks. Is there
2 anywhere else in New Mexico?

3 MEMBER VALERIO: You can try, you
4 know, the Hilton at the casino. I don't know if
5 that's an option. But they have a very large
6 conference room there.

7 CHAIRMAN MELIUS: I don't think so.
8 I don't want to have Ted put that into the travel.

9 MEMBER VALERIO: There's a couple of
10 new hotels up in Los Alamos.

11 CHAIRMAN MELIUS: Yes. I thought we
12 stayed up near there once, but maybe -- I know I
13 have. We'll figure it out.

14 Okay. Work Group and Subcommittee
15 updates. We will start, this is Ted's list,
16 Ames. Dave?

17 MEMBER KOTELCHUCK: Really not much
18 new. Tom is working on it. They've collected
19 new data which they're analyzing now and they're
20 still trying to get data.

21 And there will be some report, new
22 report in August, but we don't really have a firm
23 date even for completing the work and having a

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1 meeting.

2 We are steady. Nothing really.

3 CHAIRMAN MELIUS: So you're just
4 really waiting for the report. LaVon's going to
5 surprise us.

6 MR. RUTHERFORD: Well, I am a little
7 surprised. We are looking at a potential
8 infeasibility based on some of the documents that
9 we uncovered during our last data capture. And
10 we're trying to iron that out right now. And so
11 that's one of the big items we're working in.

12 CHAIRMAN MELIUS: So does that mean
13 we might have a report before August?

14 MR. RUTHERFORD: No. I don't suspect
15 that, but I would suspect you may have an 83.14
16 in August.

17 CHAIRMAN MELIUS: So we will have a
18 new report by -- may have one by August.

19 MR. RUTHERFORD: Yes.

20 MEMBER KOTELCHUCK: I didn't know
21 that I was to report on an infeasibility that
22 you're investigating.

23 MR. RUTHERFORD: It's in my

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1 presentation for later this afternoon so I guess
2 I can report it.

3 CHAIRMAN MELIUS: Just don't change
4 it, the slides.

5 Argonne East I think we'll hear more
6 about later. So I don't think we need to talk
7 about that.

8 Blockson, I don't believe there's --
9 nothing happening in that.

10 Brookhaven?

11 MEMBER BEACH: Brookhaven is awaiting
12 TBD revisions. And it looks like the updated
13 schedule is now June of 2017.

14 CHAIRMAN MELIUS: Okay. Carborundum
15 I think we've heard about. Fernald?

16 MEMBER CLAWSON: Not much new on
17 Fernald. We're just finishing up Site Profile
18 issues.

19 CHAIRMAN MELIUS: Okay. Grand
20 Junction. Bill.

21 MEMBER FIELD: Yes, we last met in
22 October of '16. We have one outstanding issue
23 to address yet.

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1 There's some additional records
2 retrievals planned and a follow-up interview.
3 I'm thinking maybe three or four months to have
4 that wrapped up.

5 CHAIRMAN MELIUS: Okay. Great.
6 Anything further from NIOSH?

7 MR. RUTHERFORD: We did conduct the
8 interview and I do think we got the -- the
9 information from that interview will definitely
10 support closing out the remaining issues.

11 MEMBER FIELD: Is there another
12 interview scheduled? I know there's some
13 additional records retrieval.

14 MR. RUTHERFORD: No more interviews,
15 but the records retrieval, yes.

16 CHAIRMAN MELIUS: We can keep LaVon
17 hopping up and down. We've got to get him in
18 shape for his fishing trip this summer.

19 Hanford. I just learned, it's sort
20 of been on hold as we were transitioning the lead
21 person from NIOSH.

22 But I just got an email actually
23 Monday indicating that the new lead person was

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1 ready to go and discuss issues.

2 So we'll be setting up probably
3 initially just an initial sort of technical call
4 with them and with SC&A. And then we may be
5 ready for a Work Group meeting at some point.

6 But won't know until we've had a
7 chance to talk to them. So that is moving again
8 and I'm hoping, John, you can find Arjun
9 someplace. Track him down. We haven't seen or
10 heard from him for a long while.

11 INL, Argonne West we will hear about
12 later on. Lawrence Berkeley. Paul.

13 MEMBER ZIEMER: I believe the data
14 capture and data adequacy issues are still being
15 looked at. I should have checked with Dr. Hughes
16 before the meeting to get an update on that.

17 But Laura, I wonder if you could
18 quickly tell us on that. I know that they were
19 working on that and I think the latest DCAS report
20 to us maybe is a little out of date. So perhaps
21 you can update us.

22 DR. HUGHES: Unfortunately I don't
23 have much to update. It's one of those that just

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1 haven't progressed a whole lot.

2 It's still in the same. There has
3 been no update otherwise I would have sent it in.
4 So I'm sorry, but that's really all I have to
5 report at this time.

6 And I would have to take a look at the
7 schedule.

8 MEMBER ZIEMER: I'm wondering. I
9 think the last I saw the target date was not fully
10 established on completion of that. Data adequacy
11 and capture material. Is that correct?

12 DR. HUGHES: That's correct. I'll
13 try and send you a more updated date after the
14 meeting if that's okay.

15 MEMBER ZIEMER: So in essence the Work
16 Group has not yet met. This is -- a lot of data
17 is being captured and a lot of analysis to do.

18 And I think ORAU is also working on
19 this with your staff.

20 DR. HUGHES: Yes, it is progressing.
21 However, it's slowly. It was a tremendous data
22 entry effort that we did.

23 MEMBER ZIEMER: Thank you.

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1 DR. HUGHES: Thank you.

2 CHAIRMAN MELIUS: Thanks. Okay.
3 Kansas City we're going to hear about tomorrow.
4 LANL? Josie?

5 MEMBER BEACH: LANL, I'm just going
6 to wait for LaVon to report.

7 CHAIRMAN MELIUS: It's a Work Group
8 update.

9 MR. RUTHERFORD: Yes. As we
10 indicated we should have the addendum to the Work
11 Group, to the Board in April. And I did get the
12 note on the additional Site Profile issues too.

13 CHAIRMAN MELIUS: Okay. Mound?

14 MEMBER BEACH: Mound, we made some
15 headway with the internal TBD and we are waiting
16 for the external TBD to meet again. And we
17 expect that in June 2017. It's going to be a
18 busy month.

19 CHAIRMAN MELIUS: Nevada Test Site,
20 Brad.

21 MEMBER CLAWSON: Nevada Test Site
22 we're just finishing up the last of the Site
23 Profile issues. We've got I believe one

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1 outstanding.

2 And who are you waiting on?

3 MEMBER CLAWSON: Well, it's a
4 dosimetry for Pantex external TBD. I believe
5 that's with SC&A. Evaluation of Pantex Site
6 Profile issues including neutron dosimetry,
7 vision three and Pantex external dosimetry.

8 CHAIRMAN MELIUS: No, no, we're
9 talking Nevada.

10 MEMBER CLAWSON: Oh, Nevada. Sorry,
11 that would probably help.

12 CHAIRMAN MELIUS: You had LaVon a
13 little confused there.

14 MEMBER CLAWSON: Sorry. Yes.

15 CHAIRMAN MELIUS: You fool him some
16 of the time.

17 MEMBER CLAWSON: We held a Work Group
18 with it. And it looks like we're awaiting
19 response from SC&A. That's pending.

20 It looks like Lynn Anspaugh has got
21 it.

22 MR. KATZ: Lynn Anspaugh, just
23 someone was saying something about COI. Lynn

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1 Anspaugh is cleared now.

2 MR. STIVER: We had three items. One
3 was a technical call between Lynn Anspaugh and
4 Tom Tomes -- or no, Dennis Streng.

5 And also matrix items 11 which is the
6 beta gamma ratios, and item 26 which was the post
7 92 area.

8 Both of those items are being worked
9 on right now. So, I expect we would have papers
10 out before the next meeting in August for sure.

11 CHAIRMAN MELIUS: Great. Thanks,
12 John. Oak Ridge National Lab, X-10?

13 MEMBER ROESSLER: I will have to ask
14 Dr. Hughes to report.

15 DR. HUGHES: Okay, I'm trying to
16 remember. So we are wrapping up issues that were
17 left over from the SEC evaluation.

18 They're pertaining exotic
19 radionuclides. We have done an assessment on
20 iodine. We've done an assessment on plutonium
21 241. These have been -- they're in the form of
22 a writeup, a White Paper, and now we are wrapping
23 up the remaining investigation, remaining

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1 radionuclides, and that will all be wrapped up in
2 a paper.

3 As for the time line, unsure because
4 it has to do with resource issues, and depending
5 on how many people can be working on it.

6 We expected I would say later this
7 morning at some point we're also investigating
8 some data adequacy issues that pertain to the
9 data we received from Oak Ridge National Lab for
10 individual claimants.

11 We have found some issues with
12 incompleteness and we're currently assessing
13 whether or not we have to re-request data that
14 were used for dose reconstructions.

15 So that's an ongoing effort and I have
16 the timeline for that is not really in our hands
17 because it depends on the site and their
18 resources.

19 And I believe that's it for Oak Ridge
20 National Lab.

21 There will also be at some point a
22 coworker effort once we have determined whether
23 or not there is an additional infeasibility.

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1 Once we have determined whether or not
2 there will be an SEC expansion, and whether or
3 not a coworker model would be feasible. But
4 that's further ahead in the future.

5 CHAIRMAN MELIUS: Okay. Thank you,
6 that was a very good memory. Pacific Proving
7 Grounds.

8 MEMBER LOCKEY: As far as I know there
9 is nothing else.

10 CHAIRMAN MELIUS: Okay.

11 DR. NETON: I recall that we received
12 the report from SC&A not too long ago that closed
13 out the remaining issues. So I think the Work
14 Group could meet and close out the Site Profile
15 issues at Pacific Proving Grounds.

16 CHAIRMAN MELIUS: Has the Work Group
17 met to do that? Okay, good. Pantex.

18 MEMBER ANDERSON: It looks like SC&A
19 gives a memorandum for Pantex including the
20 neutron dosimetry and it's in Revision 3 of the
21 Pantex external TBD. So that should be about
22 bringing it to an end.

23 CHAIRMAN MELIUS: Okay. NIOSH or

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1 SC&A, anything to add? You don't have to. Good.

2 Pinellas.

3 MEMBER SCHOFIELD: There's really not
4 much have come out. A short conference call
5 hopefully would be able to close out everything
6 we still have left.

7 CHAIRMAN MELIUS: Good. Questions?
8 Comments? If not.

9 MR. RUTHERFORD: My notes say
10 everything's closed out. So do his notes.
11 Everything is closed out and the Site Profile is
12 up. Everything is done.

13 CHAIRMAN MELIUS: So we can close out
14 the Work Group? Okay. You're gone, Bill, sorry.
15 It's off the list. You're off the list. You're
16 into the -- the Work Group has been retired.
17 Portsmouth Paducah K-25.

18 MEMBER SCHOFIELD: We really don't
19 have a lot going on there either.

20 CHAIRMAN MELIUS: LaVon?

21 MR. RUTHERFORD: Yes, we have a White
22 Paper that -- I think our neutron White Paper is
23 expected to be completed in June of this year.

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1 To the Work Group.

2 CHAIRMAN MELIUS: Rocky Flats we'll
3 hear about tomorrow. Sandia, Dr. Lemen isn't
4 here.

5 MEMBER BEACH: I can report on that
6 if you want.

7 So we closed out the SEC up through
8 the years of 1994 through an 83.14.

9 The Work Group to date hasn't met. I
10 know NIOSH is supposed to justify that end date,
11 and we're waiting to hear that justification for
12 the end date.

13 And it looks like that's due in June
14 of 2017. So that's going to be a busy month.

15 Anyway, I'm assuming that we'll meet
16 once we get that justification and then handle
17 the Site Profile issues if there's any we haven't
18 -- like I said, the Work Group has never met, so
19 I'm sure there will be a few things.

20 CHAIRMAN MELIUS: Okay. And are we
21 getting -- because I remember there was
22 difficulty getting information from the site.

23 MR. RUTHERFORD: Yes, there was but I

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1 think we've been getting the information now that
2 we needed.

3 CHAIRMAN MELIUS: Okay. There was a
4 reference to that in the SC&A report. And now
5 John will believe me when I say that I do read
6 the reports.

7 So that may be something for
8 discussion at an August meeting.

9 Santa Susana. And Phil, I think we
10 did the SEC last time so I'm not sure how much
11 progress there's been since then.

12 MEMBER SCHOFIELD: I don't think
13 there's been enough progress since then. I mean,
14 the SEC was passed.

15 But we will need a Work Group meeting
16 in the future hopefully as they get more data.

17 MR. KATZ: There's a new petition.

18 MEMBER SCHOFIELD: Yes.

19 MR. RUTHERFORD: Yes, we are
20 evaluating a new petition right now for '91 to
21 '93 time period. That's where CEP was doing
22 their bioassay at that time.

23 So I think -- if I put my glasses on

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1 so I can see -- yes, evaluation is in progress.
2 Probably I would suspect May on our completion of
3 that.

4 But I'll have to verify that and send
5 an email.

6 CHAIRMAN MELIUS: Notarized email?

7 MR. RUTHERFORD: Yes, well, I'm
8 sitting here thinking there are people in the
9 back going oh my gosh, I can't believe he said
10 May.

11 MEMBER BEACH: I was surprised you
12 didn't say June.

13 CHAIRMAN MELIUS: Just to make sure
14 the transcript is accurate it's May of 2017. We
15 just heard a firm commitment from LaVon.

16 Science Issues, Dave isn't here. I
17 think NIOSH just posted a mega document on --
18 someplace trying to kill our hard drives or
19 something. I've been afraid to download it or
20 look at it.

21 Do you want to tell us about that,
22 Jim? As an update.

23 DR. NETON: Yes. Earlier this week,

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1 probably Monday I think it was we posted on our
2 shared drive, I think it would be your O drive,
3 I'm not sure, the Revised Dose Rate Effectiveness
4 Factor Report that Oak Ridge Center for Risk
5 Analysis did for us.

6 We reviewed it. We had no real
7 serious comments so we thought we'd share it with
8 the Science Issues Work Group along with six
9 independent subject matter expert reviews that we
10 had on Rev 1 draft, or Rev zero draft that is.

11 So it's out there. It's 400 pages
12 long including a 40-page executive summary. A
13 lot of information. It's 394 pages actually I
14 think. A lot of information.

15 The bottom line is that they are
16 recommending that the DDREF be changed from what
17 is currently in IREP to a log normal distribution
18 with a slightly lower central value, median
19 value, and wider confidence interval. That's the
20 bottom line.

21 So, we appreciate any input the
22 Science Issues Work Group could provide to us on
23 this.

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1 MR. KATZ: Dr. Richardson is
2 consuming that big report.

3 DR. NETON: I did communicate with Dr.
4 Richardson and he was very interested in it. He
5 didn't have access to the shared drive so I did
6 email him a copy and it went.

7 So, those who don't have direct access
8 to the shared drive, I may -- it probably depends
9 on your email server. It's an 8mb file. So if
10 some people want to let me know I can try to send
11 it to them if they can't easily access the NIOSH
12 drive.

13 CHAIRMAN MELIUS: I think we're going
14 to need an extra day at one of our next meetings
15 to present the executive summary, let alone the
16 full report.

17 MEMBER MUNN: We really appreciate
18 having that, Jim. Thank you very much.

19 CHAIRMAN MELIUS: I would say it would
20 be good bedtime reading but it would probably
21 crush you if you're trying to hold it up or
22 something. Like reading War and Peace.

23 MEMBER MUNN: Nothing else is going

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1 to happen for a while?

2 CHAIRMAN MELIUS: No, it's an
3 important report. And I think we do need to try
4 to move along, get it reviewed. So, good.

5 SEC issues. The only thing we have -
6 - TBD-6000.

7 MEMBER ZIEMER: We do have an issue
8 to close out at Joslyn yet. Dave Allen will be
9 addressing that. It has to do with an MCNP
10 calculation that SC&A has suggested that
11 evaluation.

12 And I believe Dave Allen has a target
13 date of July of this year to finish that up. So
14 the Work Group will need to look at that.

15 And then one other comment that I
16 would like to make relative to General Steel
17 Industries. We have the comment from SC&A on the
18 Rev 3 that's hanging out there.

19 And we heard Jim's verbal response.
20 But it seems to me it would be appropriate to ask
21 NIOSH to give us a written response -- to give
22 the Board a written response of that.

23 And maybe we can -- if action is

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1 needed we might be able to formally close that
2 out in our phone conference meeting.

3 It doesn't appear to me, although I
4 certainly could be persuaded otherwise I suppose,
5 it doesn't appear to me that we would need a Work
6 Group meeting to handle that brief comment.

7 It sounded like NIOSH was carrying out
8 the revision in the way that SC&A was thinking
9 they weren't.

10 But I would like to suggest that we
11 ask them to formally reply so that we can close
12 that. It's kind of hanging out there now in Rev
13 3. If that's appropriate.

14 MR. KATZ: Just to clarify, I don't
15 think SC&A was even saying that they didn't think
16 they were doing it correctly.

17 I just think SC&A felt more
18 comfortable with it being made explicit.

19 MEMBER ZIEMER: They thought it
20 wasn't clear in the document, and I think -- well,
21 I think we'd like to see NIOSH's response. If
22 we feel that it is clear enough maybe we can close
23 it.

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1 CHAIRMAN MELIUS: Okay. So that
2 response should be circulated to the entire Board
3 when it's ready so we all have it.

4 Rather than try --
5 (Simultaneous speaking.)

6 CHAIRMAN MELIUS: Just the Work
7 Group. Yes. And then we can decide if it
8 warrants a Work Group meeting.

9 MEMBER ZIEMER: The Board could say
10 no, take it back and reevaluate it.

11 CHAIRMAN MELIUS: Okay. I just
12 wanted to make sure. If we just don't do the
13 Work Group process then we -- all the Board
14 Members have a chance to see it.

15 MEMBER ZIEMER: Right. I'm
16 suggesting that the Board try to do it if it's
17 fairly simple, but if the Board feels it's more
18 complex than that the Work Group can take a look
19 at it.

20 CHAIRMAN MELIUS: So we should be able
21 to discuss that, put on the agenda for the October
22 call.

23 MEMBER ZIEMER: What about the June?

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1 MR. KATZ: Oh, yes, sorry, June.

2 CHAIRMAN MELIUS: Okay. Uranium
3 refining. Henry.

4 MEMBER ANDERSON: We haven't met. I
5 just got from Tom I believe an update on the W.R.
6 Grace Site, that they're moving forward on
7 getting the additional information that we need
8 to answer the questions of our initial reviews.
9 So that's next on our agenda.

10 CHAIRMAN MELIUS: Surrogate data.
11 This is me. And we have Surrogate Data Work
12 Group will be meeting sometime shortly. We have
13 Allied Chemical where we've talked about it at a
14 few meetings here.

15 And we've got some clarification now,
16 I guess you'd call it a White Paper, I'm not sure.
17 A White Paper from DCAS sort of explaining what
18 their methodology is there and so we need -- the
19 Surrogate Data Work Group needs to review that
20 and we can -- so we'll be setting that up.

21 Weldon Springs. Dr. Lemen isn't
22 here. I don't know if there's --

23 MR. RUTHERFORD: I can say our TBDs

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1 were recently approved back in February.
2 Revisions to the TBDs.

3 MR. KATZ: Okay, so John, are you
4 already working on looking at those?

5 MR. STIVER: No, we have not yet
6 started looking at them. We had two outstanding
7 items still on the BRS that need to be addressed.

8 We would need to look at the TBDs to
9 verify.

10 CHAIRMAN MELIUS: Dave, the
11 Subcommittee on Dose Reconstruction?

12 MEMBER KOTELCHUCK: Okay. Well,
13 we've chosen blind for SC&A for set 24. We're
14 basically moving along and we're moving along in
15 sets 19 through 21.

16 And we have NIOSH responses to the
17 SC&A reviews for Oak Ridge, the gas diffusion
18 plants, remaining AWE sites.

19 So, at our next meeting on April 13 we
20 should be able to go over those. And
21 fundamentally we're moving along steadily.

22 CHAIRMAN MELIUS: Excellent. Any
23 questions for Dave?

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1 Okay. And let me follow up if I
2 deliberately skipped over this earlier, the Dose
3 Reconstruction Review Methods Work Group has not
4 met recently.

5 We are waiting on a report that NIOSH
6 has commissioned, Mark Griffon's been working on.

7 I've got to talk to Stu and get
8 coordinated on that, but I suspect we will meet
9 between now and our next Board meeting. I think
10 we need to get that process moving along.

11 Members of the group, be prepared.
12 But you need something to look at to prepare for
13 so we'll get that.

14 The Procedures Subcommittee.

15 MEMBER MUNN: Procedures last met
16 January 10, just immediately before the Board's
17 last teleconference.

18 We continue to have a fairly full
19 agenda when we meet, continuing a great deal of
20 work with PERs.

21 We have not had any sessions since we
22 reported to the Board requesting -- I think Mr.
23 Katz requested at least four new PERs, Simons and

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1 a couple of SC&A reviews for procedures which
2 have been superseded, or become obsolete and have
3 been now covered by other procedures, none of
4 which have been properly evaluated. So SC&A is
5 doing those for us.

6 We anticipate that within probably
7 about three to four months we will have adequate
8 material for another meeting. We don't have a
9 date scheduled yet.

10 CHAIRMAN MELIUS: Okay, thank you.
11 Any questions for Wanda. Okay. I think we've
12 completed our Work Group updates and Subcommittee
13 updates. So we can adjourn.

14 Later this afternoon again we'll go
15 over the public comments from the last meeting
16 and see if we can pin down possible locations for
17 the next meeting.

18 Okay. Thank you all and we'll
19 reconvene -- I believe it's 1:30. Yes, 1:30.
20 Thank you, everybody.

21 (Whereupon, the above-entitled matter
22 went off the record at 11:41 a.m. and resumed at
23 1:38 p.m.)

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1 MR. KATZ: Welcome back, everyone,
2 after lunch.

3 CHAIRMAN MELIUS: Can you all please
4 pay attention. Our Designated Federal Official
5 wishes to speak.

6 MR. KATZ: For people on the line this
7 is the Advisory Board on Radiation Worker Health
8 and we're entering our afternoon session.

9 We have an INL SEC petition session
10 coming up.

11 I just want to check first on the line
12 and see which Board Members we have on the phone.

13 MEMBER FIELD: Bill Field.

14 MR. KATZ: Great. Hi, Bill. And
15 that may be it unless John Poston is on the line.
16 Okay, because Loretta is recused for this.

17 And just for the record Brad's recused
18 for this too. Okay.

19 Let me just take this -- well, I still
20 don't see -- maybe I'll wait for the public
21 comment session. I'll talk later in the
22 afternoon. Okay.

23 CHAIRMAN MELIUS: Okay, so Tim.

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1 Sorry for the wait and the delay.

2 **INL SEC PETITION**

3 **(1949-1970, Scoville, ID)**

4 DR. TAULBEE: Thank you, Dr. Melius,
5 ladies and gentlemen of the Board.

6 I'm going to talk about the Idaho
7 National Laboratory update to the SEC Evaluation
8 Report.

9 And before I get started I want to
10 recognize my colleagues who did the technical
11 work of this, [Identifying information redacted],
12 and then pulling the whole report together was
13 [Identifying information redacted] who did a
14 phenomenal job from the technical editing
15 standpoint.

16 So I'm going to be talking about SEC
17 219 and this is Revision 2 to the Evaluation
18 Report.

19 Typically when we do an ER addendum we
20 give you a separate standalone report. So why
21 did we do a revision this time instead of just
22 doing the standard addendum?

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1 Well, normally within an addendum
2 there's one topic that's being covered, say it's
3 thorium or mixed fission products, or something
4 at a site.

5 In this case we had three different
6 reserved topics. And so we actually did generate
7 an ER addendum and it was 80 pages long once we
8 got it together, and it was cumbersome because
9 we're jumping around from one section to the
10 other.

11 And so it was difficult to follow as
12 a standalone document.

13 And so we tried to incorporate it into
14 the original ER and what ended up happening was
15 that 80 pages reduced down to 30 pages because we
16 had 50 pages of duplicate text that was in the
17 original Rev 1.

18 And so this seemed to be more
19 efficient and provide context. And then we've
20 got one document that everybody can reference and
21 we can work with within the Work Group.

22 So, this is the Revision 2 to this ER
23 addendum.

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1 So, a little bit of the petition
2 history. The petition was received on July 8,
3 2014. July 21st of 2015 is when we issued Rev 1
4 of this report recommending a single Class of
5 workers be added to the SEC.

6 And there were three areas reserved
7 for follow-up evaluation. These were the Test
8 Area North, TAN-615, and this was due to uranium
9 work that was going on without mixed fission
10 products associated with that work.

11 The auxiliary reactor area, in the
12 initial Evaluation Report we found that they did
13 a protactinium separation and we didn't know much
14 more about it other than we knew it happened.

15 And then finally for the burial ground
16 in November of 1969 we found that they did a drum
17 retrieval that we also needed to follow up and to
18 evaluate.

19 So this Evaluation Report Rev 2 was
20 issued February 22nd of 2017.

21 The proposed Class Definition hasn't
22 changed from Rev 1. We're not recommending
23 expanding the Class from this revision. And so

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1 it stays the same of all the employees of the
2 Department of Energy, its predecessor agencies,
3 their contractors and subcontractors who worked
4 at the Idaho National Laboratory in Scoville,
5 Idaho, and (a) who were monitored for external
6 radiation at the Idaho Chemical Processing Plant
7 (CPP), for example, at least one film badge or
8 TLD dosimeter from CPP between January 1, 1963
9 and February 28, 1970, or (b) who were monitored
10 for external radiation at INL, for example, at
11 least one film badge or TLD dosimeter between
12 March 1, 1970 and December 31, 1974 for a number
13 of work days aggregating at least 250 work days
14 occurring either solely under this employment or
15 in combination with work days within the
16 parameters established for one or more other
17 Classes of employees in the Special Exposure
18 Cohort.

19 So this, again, this Class Definition
20 has not changed.

21 So let's talk about these three
22 individual areas. Test Area North, TAN-615.
23 This was the uranium work. In August of 1962

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1 this work was with reactor fuel foils in the
2 building TAN-615 for the 638 critical experiment
3 reactor which is actually located at the low
4 power test facility.

5 This was one of the reasons that we
6 went with the revision here was because we had to
7 try and explain what was the low power test
8 facility all over again to people.

9 The process was actually pretty
10 simple. It was removal of the plastic coating
11 due to boiling, and then electro-polishing, and
12 then re-coating it with a fluorocarbon plastic.

13 Here you can see an example of the
14 worker doing this work. He is wearing full
15 coveralls with a half-face respirator and he's
16 holding a pair of tongs that has one of the
17 uranium foils on it as he's taking it from one of
18 the baths to the other.

19 So, this is the low power test
20 facility where these rings after they were coated
21 were going to.

22 And here's a photo of these rings.
23 These were very thin foils that were being

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1 assembled. And this would make up one fuel
2 assembly. So you had these foils that were being
3 re-coated there in TAN-615 and then taken down to
4 the low power test facility, reassembled and then
5 put into the reactor and experiments run.

6 This was a General Electric program.
7 This wasn't Phillips Petroleum or the other
8 contractors. This was a General Electric
9 function.

10 So the exposure monitoring. Well,
11 first we're talking about a limited time period,
12 August '62 through January of '64.

13 And it was intermittent work. This
14 wasn't continuous. They did it first from I
15 believe August I think to October of '62. Then
16 there was a break and then they came and did some
17 more in 1963.

18 But the whole operation was wrapped up
19 in January 1964.

20 The involved workers were GE workers.
21 And we were able to identify them basically from
22 the photos is how we got some of the names of
23 some of the workers and then could do follow-up

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1 on the reports that they wrote and identify the
2 work crew.

3 When we went to the INL bioassay
4 records and started looking we found that all of
5 these workers were routinely monitored for
6 uranium bioassay.

7 So even though you see them wearing
8 respirators and so forth they were on a routine
9 uranium bioassay program.

10 So our conclusion is that dose
11 reconstruction is feasible for these workers
12 conducting these work as we have monitoring data.

13 So moving onto the auxiliary reactor
14 area number 1, this is the second reserved area
15 that I want to talk about.

16 This is an original hot cell facility
17 in support of the SL-1 and ML-1 reactors. And
18 then during the SL-1 recovery after that accident
19 it was used as an area to do some decontamination
20 and so forth.

21 In 1968 though several years after
22 that accident and this work was done they
23 modified the ventilation in preparation for work

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1 separating protactinium-233.

2 There was a potential for iodine
3 exposure from dissolving fresh fuel in target
4 material.

5 They had done some preliminary work at
6 the MTR hot cells, alpha hot cells, and they found
7 iodine to be one of the major concerns and so
8 they needed a bigger facility in order to do this.

9 And so they chose the ARA-1 hot cell.
10 And so they modified the ventilation to do so.

11 So the protactinium-233 separations.
12 It was 816 grams that was irradiated in three MTR
13 cycles to produce the protactinium-233.

14 Now this work was -- the protactinium-
15 233 was to be used for cross-sectional
16 measurements in the neutron chopper up at the
17 MTR. So they were trying to separate
18 protactinium and then quickly get it up there so
19 that they could do the cross-sectional
20 measurements.

21 The separation was conducted on one
22 day, March 13, 1968. Iodine was detected during
23 the operation and personnel did wear charcoal

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1 filter respirators.

2 All personnel -- this is exposure
3 monitoring. All personnel involved with the
4 protactinium-233 work were counted using the MTR
5 thyroid counter, and all results were reported as
6 negative.

7 In addition, protactinium-233 and I-
8 131 are easily detected via in vivo whole body
9 counting.

10 The in vivo counts for the personnel
11 involved in this did not detect any internal
12 exposures.

13 Workers were monitored and there's no
14 indication of an exposure from this operation or
15 an intake, and so therefore we feel that dose
16 reconstruction is feasible.

17 So now the final one I want to talk
18 about, reserved areas, is the burial ground drum
19 retrieval.

20 In November of 1969 there was a
21 dedicated effort to retrieve a specific 55-gallon
22 drum.

23 This was the first time buried waste

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1 was deliberately exhumed. In the past they would
2 dump waste and they would cover it up with soil,
3 and they'd leave it alone. There was no
4 intention of going back and digging it up.

5 This was the first case that we've
6 found, the only case this early that we've found
7 where they went back to do this.

8 The retrieval was for a drum from pit
9 1 which was open -- pit 1 started receiving waste
10 November of 1957 and was closed in October 1959.

11 And they searched for two locations.
12 This is a case of a picture is worth a thousand
13 words here.

14 If you look at the photo on the left
15 that's 1958 where they were stacking the drums in
16 pit 1. You can see that they're rolling them out
17 of the trucks and stacking them, and then this
18 was all covered with soil.

19 Ten years later this is the operation
20 we're talking about in November of 1969 where
21 they went back to dig up these drums.

22 And here you can see two workers
23 standing down in a pit with shovels removing a

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1 drum right now from that area.

2 If you look off to the left of the
3 hole that was dug you can see the drums neatly
4 stacked just like they were before they were
5 covered with soil.

6 The individual standing up to the
7 right of the photograph is the health physicist
8 that was covering the job. They had continuous
9 health physics coverage that was there. We were
10 able to identify him.

11 And here you can see that same
12 individual. He wasn't just kind of standing
13 around. He helped with the drums as far as
14 moving them and offloading them from the crane
15 that was used to lift them out of the pit.

16 And here's a better photo you can see
17 of the drums there to their back kind of neatly
18 stacked as they're being uncovered.

19 So as I said the drum retrieval, there
20 was continuous health physics coverage with
21 contamination checks throughout the work.
22 There's no apparent issue with contamination.

23 We did look at the bioassay records

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1 for the personnel who were involved here and no
2 workers were placed on a special bioassay which
3 was one of the things from our interviews that we
4 discovered is that if there was a contamination
5 or something with the burial grounds that the
6 interviewees indicated that they would send
7 people for special bioassay. There was none of
8 that indicated for these workers.

9 So, from that standpoint we do feel
10 that the burial ground, this potential one short
11 operation of retrieving drums, that there was
12 really no potential for exposure, or no exposure
13 occurred, rather. There was potential but it
14 didn't occur.

15 But we aren't going to stop with this
16 from the burial ground standpoint. We will
17 continue to evaluate the burial ground exposures
18 outside the current SEC evaluation period which
19 goes up through 1970.

20 We're going to look at it post 1970.
21 And you might ask why.

22 Well, there were large-scale drum
23 retrieval operations in the later nineteen

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1 seventies through the current present.

2 And we need to pursue this -- and if
3 needed we'll pursue this expanding the Class
4 under the 83.14 process.

5 And the reason why I say large-scale
6 is this is a photo of the burial grounds from
7 1977 and here you can see that same pit where the
8 drums are actually being uncovered.

9 They're digging up all around them and
10 then loading them onto trucks and taking them
11 elsewhere. This is outside the SEC evaluation
12 period, but this is something we want to look at
13 closer because clearly they are -- instead of
14 looking for a single drum and a few people and
15 health physics -- and so because of that we want
16 to go back and look closer at that.

17 And so, as you can see here you've got
18 multiple workers, it's not a small crew. You've
19 got a large excavator that is digging in the dirt.

20 And in the photo on the right you've
21 actually got people taking samples underneath
22 where those drums are. So they've dug down
23 underneath them.

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1 If there was any leaching or leaking
2 from the drums it might be down in that area.

3 So this is an area that we want to
4 look at closer as to what the exposures were.

5 So from the current SEC which went
6 through 1970 NIOSH believes we have sufficient
7 data to reconstruct both internal and external
8 doses to all workers at the three reserved areas.

9 Therefore we're not recommending
10 expanding the current Class due to the exposures
11 at Test Area North, or Advanced Auxiliary Reactor
12 Area, or the burial grounds.

13 Again, the proposed Class Definition,
14 I read that earlier. It hasn't changed from Rev
15 1. It is currently staying the same for the Work
16 Group to evaluate.

17 In closing I want to talk a little bit
18 about the current INL activities that we've got
19 underway.

20 This particular presentation wraps up
21 the Evaluation Report for SEC 219. But we do
22 have an 83.14 underway to expand the chemical
23 processing plant Special Exposure Cohort.

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1 If you recall in my presentation a
2 couple of years ago I went through and we talked
3 about that the site did an evaluation of the
4 monitoring practices and made a lot of
5 recommendations of increasing bioassay and air
6 monitoring, and doing a lot of changes there in
7 October of 1974.

8 What we found is those changes didn't
9 actually get implemented until around 1980 to
10 1981 based upon our current evaluation here under
11 the 83.14.

12 So we are recommending expanding this
13 Class and we are -- report is in draft form right
14 now, and we expect to get this completed and sent
15 to the Board and present to you at the July
16 Advisory Board meeting.

17 After that we do plan to evaluate the
18 burial grounds during these large retrieval
19 operations in the nineteen seventies. And again
20 if needed we'll expand the Class under the 83.14.

21 We do have a lot of documents that
22 SC&A has already provided us that we need to
23 respond to. These are observations and findings

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1 from the original SEC 219.

2 And I'm sure that based upon this
3 presentation with these three reserved areas that
4 there may be more that we'll be responding to as
5 well.

6 So that's our current plan of INL for
7 the next several months. So with that I'll be
8 happy to answer any questions that you may have.
9 Thank you.

10 CHAIRMAN MELIUS: Thank you, Tim.
11 I'm surprised how few slides you have.

12 DR. TAULBEE: I meant to start out the
13 presentation with, "This might be one of the
14 shortest presentations you've ever heard from
15 me." CHAIRMAN MELIUS: It was. It was
16 thorough though for what you needed to cover.
17 We're not complaining. Positive feedback.

18 DR. TAULBEE: I'll keep that in mind.
19 Thank you.

20 CHAIRMAN MELIUS: And I hope Stu
21 wasn't too tough on you on this one.

22 DR. TAULBEE: On this one I actually
23 pared him down myself.

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1 CHAIRMAN MELIUS: So, Josie.

2 MEMBER BEACH: I don't really have a
3 question, more of an observation.

4 I was looking back at those photos and
5 it looked like there were several of the drums in
6 the '69 time frame that are breached.

7 And I know the Work Group is going to
8 look into that type of thing. But I don't think
9 you really mentioned. There are several holes
10 in those drums.

11 DR. TAULBEE: There's actually only
12 one, and that one was hit by an excavator on the
13 right-hand side photo of this one that I've got
14 right here.

15 And if you can tell the excavator
16 would dig out to a certain point and then they
17 were digging by hand. And so they hit one that
18 they looked at and tore it open.

19 But keep in mind that health physicist
20 was there to do monitoring from that area.

21 MEMBER BEACH: Right. Anyway, that's
22 just going to be a question I'm sure going
23 forward.

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1 And then the end date on the 83.14,
2 are you guys pretty hard and fast on that '81
3 time frame?

4 DR. TAULBEE: That's where we're
5 currently heading right now.

6 And the major reason for the cutoff is
7 the implementation of plutonium bioassay.

8 MEMBER BEACH: Right, I'm aware of
9 that.

10 DR. TAULBEE: For the site. That's
11 where we begin to see a lot of urine and fecal
12 bioassay for plutonium, for the CPP workers.

13 MEMBER BEACH: Okay, thanks.

14 DR. TAULBEE: I mean that's basically
15 to indicate it doesn't mean the exposure went
16 away in that time period, it just means that the
17 monitoring started in that time period.

18 CHAIRMAN MELIUS: Phil.

19 MEMBER SCHOFIELD: Tim, I've got a
20 couple of questions.

21 One, were there sniffers around that
22 area at all times?

23 DR. TAULBEE: Sniffers for --

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1 MEMBER SCHOFIELD: Yes, to detect any
2 excessive radon or any other airborne
3 contaminants.

4 DR. TAULBEE: No. During that time
5 period -- you're meaning specifically for the
6 burial grounds, correct?

7 MEMBER SCHOFIELD: Correct.

8 DR. TAULBEE: Okay. No. All that we
9 saw from the logs and the photographs are the
10 health physicist there with survey
11 instrumentation looking for contamination.

12 MEMBER SCHOFIELD: How well was the
13 waste -- were those drums category waste so they
14 knew what was in each drum?

15 DR. TAULBEE: These were all drums
16 from Rocky Flats. And so they were looking for
17 a specific drum. And honestly we're not sure
18 why, but we can find that they were looking for
19 a specific drum to retrieve something out of it.

20 And so the majority of the waste from
21 Rocky Flats would be uranium and plutonium. And
22 so there are some soil samples from that
23 particular dig and they're predominantly showing

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1 uranium.

2 But I don't know what the background
3 was for that time period and that area. So I
4 don't have any real good information to talk
5 about from that standpoint.

6 MEMBER SCHOFIELD: Okay, thanks.

7 CHAIRMAN MELIUS: Any other Board
8 Members with questions? If not I have two
9 separate ones.

10 One is -- but the first one. You
11 mentioned the need for further evaluation on the
12 burial site in the one area. I'm just sort of
13 curious as to how is that going to be processed.
14 Is that an addendum? I didn't quite understand
15 what you were saying there.

16 DR. TAULBEE: What we're going to do
17 is when we look at these operations and we look
18 at the massive scale of them and how much dirt
19 they were uncovering and retrieving all of the
20 drums, not just a few here and there which has
21 health physicists right there.

22 This is a really big operation that
23 began here. And so we want to look at the

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1 monitoring that was done on those workers.

2 And if we find that they were not
3 monitored for the uranium plutonium that they
4 should have been for recovering the Rocky Flats
5 drums then we would be recommending an 83.14 and
6 we'll find a petitioner and we will initiate an
7 SEC that way.

8 CHAIRMAN MELIUS: Okay.

9 DR. TAULBEE: Because this SEC closed
10 out at 1970 was what the initial request from the
11 petitioner was.

12 CHAIRMAN MELIUS: Okay. I guess I
13 missed that in your presentation.

14 My update request is where are we with
15 the data entry and the first Definition, the
16 Class Definition.

17 DR. TAULBEE: I actually don't have
18 an update on -- you're talking about the data
19 entry that DOE is doing for the visitor badges.

20 CHAIRMAN MELIUS: Yes.

21 DR. TAULBEE: I don't have an update.
22 I haven't heard any problems associated with
23 that.

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1 They do have a new lead out at the
2 sight. [Identifying information redacted] is no
3 longer our lead point of contact out there.

4 And we are working with -- actually
5 some people who worked with him are now the lead.

6 But we have not heard anything. But
7 we can check on that.

8 CHAIRMAN MELIUS: So what was the
9 original schedule or the current -- what you
10 thought is the current schedule.

11 DR. TAULBEE: They had indicated that
12 they expected to have all of those visitor
13 reports entered into their database system by
14 May.

15 I don't know if it's the beginning of
16 May or the end of May. It was May is what was
17 told to us last year.

18 CHAIRMAN MELIUS: Greg may.

19 MR. LEWIS: This is Greg. Tim and I
20 talked before this. As far as I know it's on
21 track as well. I hadn't checked with him right
22 before this meeting, but there's no reason to
23 believe that that May time frame is not the

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1 current schedule.

2 We believe they're working on it.
3 They hit the first half of it on deadline and we
4 believe they're on target for the second. But
5 we'll check after this meeting and confirm.

6 CHAIRMAN MELIUS: Paul.

7 MEMBER ZIEMER: Could you clarify was
8 the burial ground just INL? Did Argonne West use
9 that same burial ground?

10 DR. TAULBEE: Yes, Argonne West used
11 it as well as other offsite facilities used it
12 for a short period of time as well.

13 So it was both Argonne, Idaho, and
14 then some offsite facilities. Mostly INL.

15 MEMBER ZIEMER: But the search for the
16 barrel was strictly an INL operation versus
17 Argonne West involved in that?

18 DR. TAULBEE: That's correct. In
19 this particular case it was just INL that was
20 retrieving the drum.

21 And this was a Rocky Flats drum. So
22 these were drums that came from Rocky Flats.

23 CHAIRMAN MELIUS: Again, back to the

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1 data entry and so forth.

2 So, the schedule would be that's
3 available in May. Then you would have a report
4 based on that when?

5 DR. TAULBEE: No, I believe that would
6 be SC&A.

7 CHAIRMAN MELIUS: SC&A.

8 DR. TAULBEE: SC&A has written a V&V
9 plan that that they presented to the Work Group
10 indicating how they were going to do this
11 checking, this methodology once DOE indicated
12 that they had entered all of the data into the
13 system.

14 CHAIRMAN MELIUS: John or somebody
15 want to update us?

16 MR. STIVER: Yes, we submitted the V&V
17 plan back in September of 2016. So once that
18 information is available we can go ahead and get
19 started on that.

20 CHAIRMAN MELIUS: I don't believe the
21 Work Group has approved the plan, correct?

22 MR. STIVER: We haven't had a Work
23 Group meeting to actually discuss this. So yes,

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1 that would definitely be required.

2 In addition to that we also submitted
3 our two papers, one on the reactor prioritization
4 that spans both INL and ANL West, and also the
5 paper looking at the implementation of OTIB-54
6 and TBD-5 with the indicated radionuclides.

7 And we're coming close to finishing up
8 our review for the CPP pre 1963 and also burial
9 grounds pre '69. And those two should be -- we
10 should have those reports before the August
11 meeting.

12 CHAIRMAN MELIUS: And where is NIOSH
13 in terms of reacting, reviewing to the two
14 reports that you've seen.

15 DR. TAULBEE: Our focus has been on
16 the 83.14 for expanding the Class for CPP which
17 is what we are expecting to present to you all
18 before the July meeting. So it is currently in
19 draft.

20 Short answer, sorry, is we have not
21 started evaluating their reports because our
22 resources have all been working on the CR
23 addendum and then the 83.14 which were the

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1 priorities given to us by the Work Group.

2 CHAIRMAN MELIUS: Okay. Because I
3 would suggest, Bill, if we could have a Work Group
4 meeting. I think we need to review the sampling
5 plan from SC&A.

6 I know I have some concerns about it,
7 at least when I first looked at it which has been
8 awhile. But we should do that.

9 And then if NIOSH is ready to -- has
10 had a chance to review the other reports that are
11 available then we can talk about those also in a
12 Work Group meeting.

13 But that's sort of up to -- I think
14 we just need to be ready by May to get SC&A
15 started on the review of all the data that's been
16 entered.

17 MEMBER SCHOFIELD: From a request
18 from the group members and of course SC&A and
19 NIOSH and see what dates, and which part of May.

20 MR. KATZ: I'll send out a request for
21 scheduling. So probably early May, or late
22 April, right?

23 We want to give I guess NIOSH as much

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1 time as possible so that there's an opportunity
2 to get some feedback on the other reports too,
3 right? Or not?

4 CHAIRMAN MELIUS: Well, I'm not
5 worried about that. I'm not sure that -- I don't
6 think we should schedule around that.

7 Because I actually think that the
8 sampling -- if we're going to request that SC&A
9 change their plan then we need to give them time
10 also.

11 So I would say if we can do it in April
12 it would be better.

13 MR. KATZ: Okay. I'll send out a
14 request to the Members and staff.

15 CHAIRMAN MELIUS: And NIOSH may have
16 preliminary comments. I mean it's whatever is
17 available is available, but I don't think they
18 need to have anything done by then.

19 MEMBER BEACH: Did we ever talk about
20 the prioritization 2 that we asked SC&A to give
21 us? I know we've got that, but I don't know if
22 we ever discussed it as a Work Group. Do you
23 recall, anybody?

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1 CHAIRMAN MELIUS: My memory's not.

2 DR. TAULBEE: I do know that since
3 their re-prioritization reports that came out are
4 actually more of a summary of all of the
5 information to help the Work Group decide on the
6 priority is how I read those reports to be.

7 So, I think that would be an
8 additional good topic to discuss at that meeting.

9 CHAIRMAN MELIUS: Yes, that's how I
10 recall it too. I thought -- maybe I missed
11 something. Thank you.

12 Anything else? LaVon, you have
13 anything? Or are you just standing up getting
14 prepared.

15 MR. RUTHERFORD: I'm just standing
16 up.

17 CHAIRMAN MELIUS: Okay. Any other
18 Board Member questions?

19 MEMBER VALERIO: This is Loretta. I
20 have a question. Can you hear me okay?

21 MR. KATZ: Can you speak closer to the
22 phone, Loretta?

23 MEMBER VALERIO: Can you hear me all

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1 right?

2 MR. KATZ: Yes. You know you're
3 recused for INL, right?

4 MEMBER VALERIO: Yes.

5 MR. KATZ: So no questions about INL,
6 right?

7 MEMBER VALERIO: No, it was about INL.
8 So, never mind.

9 MR. KATZ: Okay, thanks.

10 CHAIRMAN MELIUS: Thank you very
11 much. Let's move directly to LaVon. Do you
12 think people on the phone are setting their
13 clocks to 3 o'clock to come and hear you? Or do
14 you mind, if you don't mind going earlier.

15 MR. RUTHERFORD: No.

16 PARTICIPANT: Excuse me, Mr.
17 Chairman?

18 CHAIRMAN MELIUS: Yes?

19 PARTICIPANT: Did you vote on the SEC?

20 CHAIRMAN MELIUS: No, no, there's no
21 recommendation or plan to vote on it today.

22 PARTICIPANT: Oh, no plan to vote on
23 it.

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1 **SPECIAL EXPOSURE COHORT UPDATE**

2 MR. RUTHERFORD: All right, we're
3 having a little technical difficulties. I'm
4 LaVon Rutherford. I'm going to give the Special
5 Exposure Cohort update.

6 We give this update every Board
7 meeting. It gives the Board an idea of what
8 petitions are in qualification, under evaluation,
9 currently under Board review, and future or
10 potential SEC petitions, 83.14s.

11 We've had 237 petitions to date. We
12 have no petitions in qualification. We have five
13 petitions that are in evaluation, including three
14 addendums. And we have eight reports with the
15 Advisory Board.

16 Santa Susana as I mentioned earlier is
17 a petition that's under evaluation at this time,
18 '91 to '93, and it is May of 2017. See, Josie,
19 it wasn't June.

20 Metals & Controls. This is a petition
21 that we almost had ready for the Board meeting
22 but didn't quite make it. We do expect to have
23 it completed in April.

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1 Los Alamos National Lab again is an
2 addendum that will address the remaining years
3 '96 to 2005. We almost had this one does as
4 well.

5 This is our first addendum that will
6 address the 10 CFR 835 area which is when the
7 federal regulation came out on the radiation
8 protection program.

9 Sandia National Lab addendum
10 addresses the '95 to 2005. We expected to follow
11 up. It will again address 10 CFR 835 area and
12 will be in June of this year.

13 Lawrence Livermore National Lab will
14 follow that one in August of this year. And that
15 will address the 1990 to 2014 period that was
16 remaining on that petition.

17 And then the petitions that are under
18 the Board review, Carborundum which was discussed
19 earlier is no longer under Board review.

20 The FMPC, Fernald, we do expect that
21 final TBD to be completed in April. And then
22 this is still waiting on a Board recommendation
23 to close out the petition.

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1 Hanford. Dr. Melius discussed
2 earlier during the Work Group session. We are
3 continuing to evaluate the prime contractors
4 radiological control program to determine if they
5 should be included in the Class that was added
6 last. And that's in progress.

7 Savannah River Site. We have an
8 update scheduled for tomorrow morning.

9 Grand Junction we discussed earlier as
10 well. We are working on additional data capture.

11 We did have the one interview we
12 needed and I think we'll be able to close out the
13 remaining issues on this one in time for the next
14 Board meeting.

15 Rocky Flats plant we will discuss
16 tomorrow morning.

17 INL. Tim just discussed that and he
18 also mentioned the 83.14 as well as Argonne
19 National Lab West.

20 So again these are the petitions that
21 are with the Advisory Board. Feed Materials
22 Production Center, Hanford, Savannah River Site,
23 Los Alamos National Lab, Grand Junction, Sandia,

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1 Rocky, INL, Argonne West, and Lawrence Livermore
2 National Lab.

3 Potential 83.14s. We have the Idaho
4 one that Tim mentioned.

5 Ames Laboratory. This one's not
6 finalized yet. We are still evaluating the time
7 period on that and we are still awaiting some
8 last minute information from the site as well, or
9 from the lab.

10 Sandia National Lab, Albuquerque
11 early years. This has been on here for a long
12 time. These claimants have been compensated
13 under LANL so we've never received a claim for
14 that period that would fit as a litmus claimant.

15 And then the Dayton Project Monsanto
16 has been on for some time as well.

17 Questions. I know that's next.
18 Actually that's it. Questions.

19 CHAIRMAN MELIUS: On the potential
20 83.14 obviously Idaho we just talked about. But
21 the other three, are you waiting to identify
22 people?

23 MR. RUTHERFORD: Actually, Sandia,

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1 Albuquerque and Dayton Project, we have not
2 received a claimant that would be eligible to act
3 as our litmus claimant or would be eligible for
4 the SEC.

5 CHAIRMAN MELIUS: Okay.

6 MR. RUTHERFORD: We don't want to move
7 forward with a claimant that's not going to get
8 compensated.

9 CHAIRMAN MELIUS: That makes sense.
10 I just wasn't sure. Idaho is the one that you're
11 just identifying and then processing. I don't
12 know if we've had a chance to look for a claimant
13 in that one. Or potential claimant.

14 DR. TAULBEE: We have identified a
15 claimant and contacted them and they're willing
16 to be a petitioner. We're far along that line.

17 CHAIRMAN MELIUS: Okay.

18 MR. RUTHERFORD: Any other questions?

19 CHAIRMAN MELIUS: Other Members with
20 questions?

21 Okay. Thank you, LaVon. That was
22 easy, wasn't it?

23 So, what I would suggest is that we go

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1 through another Work Group -- well, we're done
2 with the Work Groups so it's sort of Board work
3 time.

4 We've got public comments and maybe
5 before that any further thoughts over lunch about
6 the site for our next meeting?

7 My sense in talking, thinking about it
8 was between Sandia and LANL. It would make sense
9 to go to New Mexico again even though we've been
10 there recently.

11 And then with INL or Oak Ridge as a
12 backup. Is there any comments or thought on
13 that? It's hard to tell.

14 Hearing no objection why don't we have
15 that be the plan and see what can be worked out.

16 I don't think we've ever had many
17 people from Sandia come forward and there are
18 some issues with that site in terms of clearance
19 and so forth.

20 So it may come down, LANL -- the Santa
21 Fe area may be a better area. The question is
22 is it going to be feasible. Yes, Paul.

23 MEMBER ZIEMER: Is the inhalation

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1 toxicology lab in Albuquerque, they're in the
2 program too, are they not? Do we have claims
3 from there?

4 Or is there a Site Profile? That's a
5 fairly small facility, I think. I think it was
6 called Lovelace. Maybe not a Site Profile. It's
7 fairly small.

8 MR. LEWIS: I don't know if there's a
9 Site Profile, but DOE does get records requests
10 for it. There are not a large number of them,
11 but we do respond to them.

12 MEMBER ZIEMER: It's yet another
13 facility in there that might be of interest.
14 They're close to Sandia. I think they're on the
15 Sandia Site, in fact.

16 MR. LEWIS: Yes.

17 CHAIRMAN MELIUS: I think we should
18 keep that in mind and see. Okay.

19 Public comments. You all should have
20 received a two-page public comment record from
21 last time, and plus the -- much longer document.
22 So I'll read through the short version
23 CliffsNotes here.

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1 And again, we have here the public
2 commenter, the issues that were raised, who the
3 responder was and a description.

4 And then basically go through them by
5 group.

6 So the first two are relative to
7 Carborundum. And I think it's pretty
8 straightforward. Stu has responded to those
9 really at the meeting at the time.

10 One of the petitioners for Los Alamos
11 then spoke. These are the next three. And
12 again, I think LaVon has responded to them. I
13 don't know why March 1 was the magic date.

14 And then we have a series of six
15 comments regarding security officers at the
16 Sandia facility. And again, questions about the
17 status and so forth. [Identifying information
18 redacted] has responded to those in February. I
19 think again it appeared to be pretty
20 straightforward.

21 Another set of three comments from
22 [Identifying information redacted] regarding the
23 LANL Site. Again, LaVon responded to those at

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1 the meeting. Again, I think pretty
2 straightforward.

3 We have -- I guess Terrie Barrie gets
4 to set the record for this one with eight public
5 comments, different comments, all related to
6 Rocky Flats.

7 LaVon, you were busy on March 1
8 responding to those. But again I think they all,
9 again. I think the Work Group was a different
10 date. Yes, something in February. Again, I
11 think all straightforward.

12 We'll be talking about the site
13 tomorrow.

14 Jon Lipsky, one comment regarding some
15 issues at the Rocky Flats Site. Again, LaVon
16 responded.

17 Donna Hand, issues about the
18 qualification of the petition for Pinellas. And
19 Pete Darnell responded to that.

20 Hugh Stephens brought up an issue
21 about assignment of zero dose for non-SEC cancer.
22 Jim Neton responded to that.

23 Again, a comment related to Lawrence

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1 Livermore.

2 Did we ever receive -- this report
3 here is unintelligible. Awaiting written
4 information. I don't know if we ever received
5 the written information.

6 Someone should follow up on that one,
7 I think. I don't know who's responsible. LaVon,
8 can you? Whether we received it or not.

9 I remember Ted asking for the
10 information in writing. But whether we received
11 it or not, or what happened. I think at least
12 to clarify the record on that.

13 Stephanie Carroll again a series of
14 comments on Rocky Flats. Again, LaVon was trying
15 to set the record for the most responses in a
16 single day. By cheating I think here on the
17 date. But close enough. February or March is
18 fine.

19 And then finally there's one last
20 comment, [Identifying information redacted]
21 regarding a particular individual claim. I think
22 this essential was referred to DOL for follow-
23 up.

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1 So, any comments, questions on those?
2 So I think it's all straightforward. And LaVon
3 will follow up, NIOSH will follow up on the one
4 to see whether the written statement or written
5 comments were received for that.

6 So, I don't think we have anything
7 else to do in terms of Board work session. We
8 have scheduled at 4:30 an update on the Argonne
9 East Site Profile, Lara Hughes and Brad.

10 So I think we'll adjourn until 4:30
11 and come back here and do that followed by a
12 public comment period.

13 (Whereupon, the above-entitled matter
14 went off the record at 2:25 p.m. and resumed at
15 4:32 p.m.)

16 CHAIRMAN MELIUS: Okay, we'll get
17 restarted here. Ted, do you want to go over the
18 instructions.

19 MR. KATZ: Sure. So, should I cover
20 those for public comment session even though it
21 starts right after this?

22 CHAIRMAN MELIUS: Yes, I think it
23 would be better.

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1 MR. KATZ: So, welcome everyone in the
2 room and on the line.

3 We are about to start the Argonne
4 East, an update which is especially for folks
5 here in this area.

6 And immediately following that we'll
7 go into a public comment session.

8 So for the public comment session if
9 you're here in the room and you have public
10 comments, you think you might like to make public
11 comments there's a book outside you can sign in
12 on just to let them know.

13 Because we'll look at that list and
14 we'll go to those folks first. So please avail
15 yourself of that over the next half hour before
16 we get to the public comment session.

17 Folks on the line, as I said earlier
18 we have no sign in for people who want to comment
19 by phone, but we'll take you after we take folks
20 in the room for their comments.

21 The other thing just then to note
22 about your public comments is these meetings are
23 all transcribed. They have verbatim transcripts

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1 that are then posted on the CDC website for
2 everyone to read.

3 So you're welcome to say whatever it
4 is your comments might be. But if you comment
5 about other people we will take steps with your
6 comments after the fact with the written version
7 to protect their identity.

8 So I'm not saying you can't mention
9 other people, you can, you're welcome to do that,
10 but we will then redact, in other words delete
11 enough information to protect their identity
12 since they're not speaking for themselves here.
13 So just be aware of that.

14 And I think that takes care of
15 matters.

16 **ARGONNE EAST SITE PROFILE REVIEW UPDATE**

17 CHAIRMAN MELIUS: Okay. And first
18 we'll have an update on the Argonne East
19 evaluation underway by NIOSH and others. And so,
20 Dr. Lara Glass from NIOSH will speak to us again
21 today.

22 DR. HUGHES: This is an update, and a

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1 very early update on NIOSH effort on Argonne
2 National Laboratory East.

3 A little bit background of the
4 facility. Some of you attended the tour
5 yesterday and I think we got a very nice overview.

6 But for those who didn't this is kind
7 of our background based on our documents.

8 The ANL East was established July 1,
9 1946 and it was and is operated by the University
10 of Chicago.

11 It's a continuation of operations from
12 the site called the Metallurgical Laboratory, so
13 under this program we're looking at two separate
14 sites.

15 The Metallurgical Laboratory is a
16 covered site until June 30, 1946, and then
17 starting July 1, 1946 it's called ANL East.

18 The Metallurgical Laboratory started
19 out on a campus of the University of Chicago where
20 they started their famous first nuclear reactor
21 and shortly thereafter they realized that wasn't
22 probably such a good idea to operate it in the
23 middle of the university campus so they moved to

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1 Site A which was out in a more rural forested
2 area at the time.

3 Site A operated from 1943 to 1954.
4 And after a while they kind of grew out of Site
5 A and transitioned to what they call Site D where
6 operations started in 1948 and where the current
7 ANL East laboratory is located.

8 Also next to Site A was a small area
9 that they referred to as Plot M that was used for
10 waste disposal. They dug some trenches and
11 buried some waste.

12 So, for this program as you can see
13 the site, the location and the timelines don't
14 match up so we have starting July 1, 1946 the
15 Argonne National Lab East was actually located at
16 the Site A. And operations continued at Site A
17 once operations at Site D started up.

18 So we're still trying to somewhat
19 clarify, but it looks like that anything after
20 1946 would be covered under Argonne National Lab
21 East for this program, whether it be at Site D,
22 at Site A, or there were some operations that
23 continued at the University of Chicago campus.

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1 As we understand all of this would be
2 covered under Argonne National Lab East.

3 Here's a map. I'm not sure how well
4 it shows up. So you can see the current site,
5 Site D, Argonne National Lab East from 1948 to
6 present. It's the location we went to yesterday.
7 And Site A is located about five miles to the
8 east of that in a kind of forest preserve area.

9 Naperville where we currently are is
10 about 30 minutes northwest of here, of Site D.

11 As for site operations they developed
12 production power and research reactors,
13 accelerator facilities, the associated research
14 and development, support operations, fuel
15 development, and separations research, waste
16 management operations, biological research on
17 animals and humans.

18 They had support operations, health
19 physics, medical department, and many more.

20 So, for the NIOSH timeline NIOSH has
21 issued six Technical Basis Documents, the usual
22 site overview introduction, external, internal,
23 environmental, medical, technical basis

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1 documents.

2 Those are all issued in 2006. So
3 they're old for our standards.

4 And the external TBD was updated in
5 2014, but as I understand it wasn't a major -- it
6 was a revision, but it was a smaller revision.
7 And it was not addressing any issues that I'm
8 talking about in a minute.

9 SC&A issued a TBD review in 2009. It
10 consisted of 13 findings and 7 secondary
11 findings.

12 Since those findings have not been
13 addressed SC&A issued an update in May 2016 after
14 being tasked by the Board. And the Work Group
15 was established in August 2016.

16 The first Work Group meeting took
17 place March 10, 2017, so only a couple of weeks
18 ago.

19 And what we did, we issued some
20 preliminary responses to the findings, but we
21 have not resolved them so there's actually 11 --
22 this is a typo -- there's 11 NIOSH action items
23 that remain.

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1 One is very minor. It just would
2 consist of including a reference in a revised
3 TBD. But until that's done that issue remains
4 open as well.

5 So, for the statistics for Argonne
6 National Lab East we have 412 claims. I
7 understand 366 of those have been submitted to
8 DOL with the dose reconstruction. One hundred
9 and seven of those with a Probability of
10 Causation of greater than 50 percent.

11 There's about 50 to 60 claims are
12 still active or pulled for various reasons.

13 There's no current actively
14 considered SEC petition. There was an SEC
15 petition in 2013 that did not qualify. It was
16 for the more modern era.

17 There are currently a little over
18 4,200 documents in the Site Research Database
19 that are labeled Argonne National Lab East. Over
20 50 percent of those were collected since the TBDs
21 were issued in 2006.

22 So we have a very large amount of
23 documents to assess before we issue a TBD

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1 revision.

2 And in addition, a lot of these
3 documents that were collected since were
4 collected during research for other sites such as
5 Argonne National Lab West. So it's not just
6 likely, but very much sure that we will have to
7 do additional data capture.

8 As for the open issues I'm just going
9 to give you a quick overview.

10 The open internal dosimetry issues
11 consist of addressing various uranium and
12 plutonium mixture compositions to updated dose
13 reconstruction recommendation on exotics and
14 accelerator produced radionuclides to refine the
15 approach for early gross alpha analysis, to
16 address the minimum detectable concentrations and
17 uncertainty, and the available bioassay
18 methodologies, to develop a better guidance for
19 missed dose assignment, and develop an approach
20 to assign doses for unmonitored workers, and
21 assess the potential need of a coworker model.

22 And also, assess whether there is any
23 internal dose potential from radon.

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1 Medical dosimetry issues consist of
2 updating the TBD with the current recommendations
3 based on OTIB-6, and also investigate the end
4 data for potential photofluorography used.

5 The open external dosimetry issues,
6 that we have to add information on available
7 external dosimetry practices and details.

8 The site has a very long operating
9 history so we're dealing with a very large number
10 of different external dosimetry technologies,
11 methods used, that sort of thing.

12 Also, we would need to include the
13 details on the updated external dosimetry
14 workbook. The workbook was updated within the
15 last few years and also that has not been
16 reflected in the TBD.

17 We need to develop a better approach
18 to deal with neutron dosimetry. Again, dose
19 assignment for unmonitored workers and include
20 the guidance to add doses for skin contamination.
21 That would be mostly including a reference to
22 OTIB-7.

23 Open environmental TBD issues. There

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1 is currently no data available for onsite
2 external environmental exposures before 1972 and
3 we suggest the use of procedure 60. That would
4 have to be included in the TBD.

5 And also an issue that was raised
6 during the review was the outdoor inhalation and
7 exposures from incidents at Site A.

8 Other issues that were raised in the
9 TBD review by SC&A was that we addressed an
10 insufficient number of incidents and accidents,
11 that we insufficiently addressed monitoring of
12 contractors, transferees, and visitors, and also
13 how -- the question was raised how human
14 radiation experiments would be addressed.

15 So, we're left with quite a number of
16 information -- needs for additional information
17 such as the details of the operations transfer
18 between the Met Lab to ANL East and from Site A
19 to Site D, details on operations at Site A and
20 Plot M, the exposure potential at the earlier
21 reactors and accelerators, details on early
22 health physics procedures and requirements, pre-
23 1972 environmental exposures, and the monitoring

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1 status of contractors and subcontractors.

2 And this list will most likely go on
3 as we dive deeper into resolving the issues.

4 And that concludes my presentation.
5 So any questions?

6 CHAIRMAN MELIUS: Yes, go ahead,
7 Brad.

8 MEMBER CLAWSON: Lara, this SEC, and
9 this may be for Bomber, I don't know. It says
10 that it didn't qualify. I guess I'm asking what
11 didn't qualify about it.

12 MR. RUTHERFORD: You have to provide
13 a basis for qualifying the petition. So at that
14 time when the petition was submitted to us they
15 did not provide a basis that would qualify the
16 petition to move forward.

17 They didn't provide evidence of lost
18 or falsified data, missing monitoring data.
19 There's a scientific or technical report. I'm
20 trying to remember them all off the top of my
21 head.

22 They didn't provide that information
23 that would support moving the petition forward.

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1 And recognize, we will move a petition
2 forward if we know there's a basis there. I
3 mean, if we have one in our records. We've done
4 that on a number of occasions.

5 So in this case at the time we didn't
6 have any information to move it forward and there
7 was no basis provided.

8 MEMBER CLAWSON: Okay. I was just
9 wondering. And there's been nothing else come
10 in since 2013? Okay.

11 MR. RUTHERFORD: That was also for a
12 more modern era too. It wasn't the earlier
13 years.

14 But we are, as Lara had mentioned, we
15 are looking at the transition between the Met Lab
16 to ANL East and how things changed. Because the
17 Met Lab is an SEC for its entire covered period.

18 MEMBER CLAWSON: Okay.

19 CHAIRMAN MELIUS: Josie.

20 MEMBER BEACH: Yes, can you tell me
21 has there been some worker outreach or worker
22 interviews, Lara, that you know of at this site?

23 DR. HUGHES: SC&A did interviews when

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1 they did their TBD review. That was like 2008
2 time frame.

3 There has not been as far as I know.

4 MEMBER BEACH: So I realize they did
5 it, but NIOSH hasn't, or any worker outreach
6 maybe?

7 DR. HUGHES: I believe not. Not that
8 I'm aware of.

9 MEMBER BEACH: Thanks.

10 CHAIRMAN MELIUS: Other questions?
11 Board Members? Gen.

12 MEMBER ROESSLER: You mentioned human
13 radiation experiments. I don't think we've dealt
14 with that on any site before.

15 I'm wondering were the workers
16 actually the subjects? How do you know that
17 that's something that needs to be dealt with?

18 DR. HUGHES: Yes, I think that has
19 been discussed internally. There was actually a
20 small number of workers and I think they
21 volunteered to I believe ingest plutonium of some
22 sort and do the, you know, keep track of the.

23 So in cases where a worker during his

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1 employment was subject to human radiation
2 experiment, I do believe we have concluded that
3 that would be included in a dose reconstruction.

4 The question is would we receive that
5 data. How would we know necessarily that this
6 person actually was involved in these?

7 I mean the question is would this
8 information end up at NIOSH when it was requested
9 from the site. Because that would not
10 necessarily land in somebody's dosimetry file.
11 Or maybe it would, we're not sure. So that's
12 something we would need to look into.

13 It's a small number of workers that
14 were involved. I think there is some
15 documentation available. So it's one of the
16 secondary issues, but it's kind of an interesting
17 one.

18 CHAIRMAN MELIUS: I believe there's
19 been a number of reports documenting what was
20 done and sponsored by DOE and other agencies.

21 So that I assume would be available.

22 DR. HUGHES: Yes, it is.

23 CHAIRMAN MELIUS: Interesting.

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1 Anybody else?

2 I guess just one comment. I think
3 we've found in the past at similar labs, DOE labs
4 across the country we end up not having adequate
5 records documenting monitoring and associated
6 tasks and potential exposures for people.

7 I mean, they're just not like a
8 production facility. And so could very well end
9 up with an SEC here.

10 And certainly based on the issues that
11 you've raised.

12 DR. HUGHES: Yes. The possibility is
13 very much -- we looked at the transition between
14 the Met Lab and ANL East to see because like what
15 changed.

16 And indeed, from the transition to ANL
17 East they did start up a monitoring program,
18 internal/external. We've seen in the bioassay
19 data are dating back to 1946.

20 So it's not a clear-cut issue. It's
21 more like teasing out, okay, where do we have
22 sufficient information and where do we not. So
23 it's a little more complicated.

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1 CHAIRMAN MELIUS: Scientists are not
2 always meticulous about recording that part of
3 their work as opposed to their scientific work.

4 But yes, you're right. We'll need to
5 see what you can find.

6 Anybody else? Paul.

7 MEMBER ZIEMER: I gather that
8 additional data capture is planned then for this
9 site?

10 DR. HUGHES: Yes, that's correct.

11 MEMBER ZIEMER: I wanted to follow up
12 on Josie's question on the interviews. Do we
13 have either from film badge records or other such
14 records, do we have a good inventory of potential
15 names that could be contacted?

16 And I'm thinking specifically, for
17 example, of the health physics staff here, or
18 management staff, or even people in the dosimetry
19 group that would have kept the records. Do we
20 have names?

21 DR. HUGHES: I do believe we do. The
22 records are generally in very good condition.
23 The reports we get on individual claims are very

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1 legible. So yes, we would certainly have names
2 now.

3 And the availability of interviewees
4 might be a different story, especially when you
5 go back into the very early period, however.

6 I do believe we can certainly come up
7 with a good list.

8 CHAIRMAN MELIUS: Yes, Brad.

9 MEMBER CLAWSON: I'd just also like
10 to make, you know, we had our first Work Group
11 meeting for this March 10 and Lara listed out
12 several of the documents that we should be
13 looking for to being able to see.

14 But also too that when we came out
15 here we went out to Argonne and actually had a
16 very good tour.

17 They showed us where a lot of the
18 places used to be. There was a good basis to be
19 able to understand the site a little bit better.

20 Those that did come I think really
21 enjoyed it. And we'll press forward.

22 CHAIRMAN MELIUS: Thank you. And I
23 also have a claimant that I want to refer for

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1 interview that I think is through the process
2 now. The father of a colleague of mine.

3 Good. We will now go into the public
4 comment period. So, public comment. Okay, Hugh
5 Stephens?

6 **PUBLIC COMMENT**

7 MR. STEPHENS: Thank you, Dr. Melius
8 and the Board.

9 I just wanted to say a few things.
10 I'm an attorney with Stephens & Stephens. My
11 father and I practice together. I represent
12 claimants all over the country and generally a
13 lot of the claimants that we represent are
14 claimants who've been denied.

15 And so I spend a lot of time telling
16 them that this is a good program in spite of the
17 fact that their claim was denied and try and
18 explain what happens here, and that these issues
19 are addressed carefully.

20 And the issue that I raised last time
21 I was here before the Board was that when the SEC
22 is passed it's passed I believe based on the idea

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1 that the dose reconstructions are not
2 sufficiently accurate.

3 They're not sufficiently accurate in
4 that there's a likelihood that they're
5 understated for at least one claimant.

6 And on that basis I think there's a
7 determination that even if it were just one
8 claimant that would be enough to establish a
9 Special Exposure Cohort to use a presumption to
10 determine whether those workers get paid.

11 And what I was talking about last time
12 is the fact that this determination is based on
13 the idea that the dose reconstruction is somehow
14 understated.

15 And yet when the SEC is passed the
16 dose reconstruction for those claimants who have
17 skin cancer, or prostate cancer, or otherwise do
18 not fit within the Special Exposure Cohort their
19 dose reconstruction goes down to zero in
20 connection with at least a portion of that dose
21 reconstruction.

22 So what happens is there is a dose
23 reconstruction, a partial dose reconstruction

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1 because that part of the dose reconstruction for
2 which there's been a determination that it is not
3 sufficiently accurate is then not done by NIOSH.

4 And that may be appropriate in certain
5 instances.

6 But what I submit is that while a dose
7 reconstruction might not be sufficiently accurate
8 to deny a claim, it might be sufficiently
9 accurate to accept one.

10 And so there are sites where the data
11 is so bad you really can't even -- you don't know
12 where to begin. Maybe that's the case. I don't
13 know all this as well as you do as Board and
14 certainly NIOSH does.

15 But I think with respect to certain
16 SEC sites there is something of a battle between
17 NIOSH and SC&A.

18 Sometimes SC&A wins. But NIOSH has
19 strongly held beliefs, good faith belief that
20 they can do these dose reconstructions.

21 And SC&A says no, there's some
22 problems and you shouldn't do it and so we should
23 have the presumption.

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1 I think that in those cases there
2 should not be a determination that just because
3 it's not sufficiently accurate to deny a claim
4 that it is also not sufficiently accurate to
5 accept one.

6 And in those cases -- there's an
7 argument in those cases, even in those cases that
8 it shouldn't be reduced. The dose reconstruction
9 shouldn't be reduced. It should be increased
10 based on the fact that it's insufficiently
11 accurate.

12 But instead it's not just decreased,
13 it's decreased to zero. So, if it's the external
14 dose then they can't do external dose. It's
15 probably not a good example because usually it's
16 the internal dose, but one way or another.

17 These claims -- so we have a
18 determination that the SEC should be passed
19 because certain of the claimants are falling
20 through the cracks because of the insufficient
21 accuracy of the data.

22 But what we then turn to is people
23 falling through the cracks, people who have skin

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1 cancer, prostate cancer, otherwise don't fit
2 within the SEC.

3 And I know so far there's been an
4 effort to do the dose reconstructions, the
5 partial dose reconstructions.

6 But what I submit is that there are
7 facilities in the complex where you could do the
8 full dose reconstruction and it wouldn't require
9 us to do anything except use the old models that
10 NIOSH was using and they're not allowed to use
11 anymore because the SEC has been passed.

12 We are not talking about a situation
13 where the data is so bad that you just can't use
14 it. It's not scientific. Maybe it fails the
15 Daubert standard from a legal point of view.

16 That's not what we're talking about.
17 We're talking about issues with the data that
18 caused the SEC to be passed.

19 So I would propose that each facility
20 where the SEC has been approved, that in addition
21 to the determination that dose reconstruction
22 should continue to be done based on the data
23 that's available, but that that data that's

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1 available should include the NIOSH dose
2 reconstruction, the NIOSH model that was being
3 used before the SEC was passed.

4 And maybe that's a difficult,
5 impractical thing to do, but I think it could be
6 done with respect to each SEC based on the
7 evidence that exists.

8 My father likes to say that foolish
9 consistency is the hobgoblin of small minds. And
10 I think it's an apt example.

11 And I think that a detailed analysis
12 would lead to good results. There are people who
13 are now falling through the cracks and we could
14 prevent that with respect to certain of them.

15 That's all I have. Thank you.

16 CHAIRMAN MELIUS: I think our
17 attorney would disagree with you. Just to add
18 that this issue was discussed at length early in
19 the program, the regulations.

20 You interpretation -- the current,
21 legal understanding. So we're following the law
22 here.

23 Karen Kucer is it? Did I get it

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1 right?

2 MS. KUCER: Hi. I'm here on behalf
3 of my [Identifying information redacted] who
4 worked at Argonne National Labs in the sixties
5 and the seventies.

6 He was an ironworker and a laborer.
7 He worked his way up to superintendent. And at
8 one point in time he was in a room and no one
9 knew he was working underneath a table and they
10 were experimenting in the room.

11 And everything is documented with DOL.
12 And we've submitted our set. And we were denied
13 of course.

14 And also I brought my brother here,
15 and he also worked at Argonne in 1979.

16 And my father was a superintendent of
17 the welders, painters, pipefitters, carpenters,
18 and ironworkers, and he only had an eighth grade
19 education.

20 So, he had my brother welding and he
21 was told to do this. And they were welding --
22 oh, he was told to only weld two hours in a room
23 for safety precautions and to trade off with his

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1 partner, taking turns.

2 Instead, [Identifying information
3 redacted] had to work eight hours welding in a
4 room because the other person didn't know how to
5 weld.

6 So, safety back then wasn't as -- of
7 very good strength. They didn't really monitor
8 it that much.

9 And also, my brother welded on
10 radiated used blocks of metal for a barrier for
11 the radiation that's shot from the beam.

12 After months of welding OSHA came in
13 and made everyone wear protective gear. But in
14 that meantime they were all exposed. And that's
15 about it.

16 Oh, and my father's personality
17 started changing after -- he'd come home -- one
18 more thing is that I do remember him coming home
19 and showing us that he would be covered in this
20 white dust. They were tearing down walls. And
21 he told us not to come near him because eventually
22 if we got it on our body you would get cancer in
23 the long term.

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1 That's about it.

2 CHAIRMAN MELIUS: Okay, thank you.
3 David.

4 DAVID: Yes, I worked about '78. And
5 my job was to weld plates for the barrier.
6 They're all irradiated.

7 And for the longest time, three or
8 four months no protective anything. And then
9 after we had respirators and we're supposed to
10 only weld so long. And I was welding the whole
11 day. The whole time I was welding for four or
12 five months and thereafter.

13 So, it wasn't that much of monitoring
14 of stuff. But I just wanted to say that.

15 CHAIRMAN MELIUS: Thank you, that's
16 helpful to have that. Anybody here wish to make
17 public comments relative to Argonne? Okay.

18 Anybody else in the audience that
19 wishes to make public comments?

20 Okay, then we have Stephanie Carroll
21 I believe is on the line that wishes to make
22 comments. Stephanie, are you on? Anybody else
23 on the telephone that wishes to make comments?

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1 MS. CARROLL: I'm sorry, can you hear
2 me?

3 CHAIRMAN MELIUS: Yes, we can now.

4 MS. CARROLL: Okay, thank you.

5 CHAIRMAN MELIUS: Turn the mute
6 button off.

7 MS. CARROLL: I know. I messed up.
8 Anyway, my name is Stephanie Carroll. I am a
9 professional authorized rep for workers at Rocky
10 Flats.

11 And one of my clients is the lead
12 scientist for the critical mass lab. And I was
13 the one who brought him to the attention of the
14 Board.

15 But thank you for allowing me to
16 comment on the Board's evaluation of Petition SEC
17 192.

18 On October 17, 2013 the Board extended
19 the investigation from '83 to 2005. This fact
20 seems to have changed over time with no
21 explanation.

22 All the Work Group meetings seem to
23 concentrate on the 1989 time period when the only

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1 time period that is specified as such is the
2 neptunium issues I think prior to '88 or
3 something.

4 The Work Group met on October 28, 2015
5 and I have summarized the investigations
6 outstanding from that Work Group meeting. Some
7 of those issues are as follows.

8 The lead scientist informed NIOSH
9 about 35 boxes at the critical mass lab, and the
10 documentation had been sent to Los Alamos right
11 before this meeting.

12 NIOSH was looking forward to doing
13 some research and they agreed to -- by LaVon
14 Rutherford -- search for more documentation on
15 power levels.

16 Five levels of documentation were
17 found prior to 1975 and they are supposed to be
18 representative of the power levels of 1,700
19 experiments.

20 I don't agree that that's
21 statistically significant enough to reconstruct
22 the power levels in the experiment, and neither
23 does the lead scientist for the critical mass

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1 lab.

2 LaVon agreed to retrieve workers'
3 personal bioassay lung counts for potential
4 exposures in the critical mass lab.

5 I have these for the lead scientist
6 because he is my client and I will be submitting
7 those. And there are a lot of problems with --
8 with paying attention mainly to alpha at the
9 critical mass lab when it came to body analysis.

10 They also agreed to research the site
11 that the ATU had been shipped to for activity
12 concentrations. I don't believe this was done.

13 They agreed to identify product levels
14 generated by other criticality experiments
15 performed throughout the complex. This was not
16 done.

17 An interview was conducted with an RCT
18 who had worked at the site after 1983. And LaVon
19 Rutherford said that their assumption was always
20 that there was little potential for airborne
21 internal exposures to contaminants based on
22 operations and routine monitoring.

23 I don't know how he understood this

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1 because he hadn't reviewed the boxes yet.

2 The RCT had issues with this
3 assumption. LaVon Rutherford said we have some
4 air monitoring data from this facility, but are
5 looking to validate or refute the RCT's
6 testimony.

7 The RCT gave names of other workers
8 that could be interviewed. I want to know if
9 this was done and also if these other workers
10 were interviewed, and if summaries were submitted
11 to the Work Group before they voted to deny the
12 expansion.

13 LaVon said we will be interviewing
14 these technicians and RCTs that were working
15 during that era. I believe he was only talking
16 about 1983 to '89.

17 He said that he will report back after
18 next week's visit on the research of the 35 boxes,
19 and obviously SC&A and the Work Group will attend
20 during the review of the boxes.

21 I believe the intention was to have
22 the Work Group and SC&A go through that
23 documentation also.

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1 Did the Work Group review the
2 evidence? LaVon said we will be looking for the
3 log book recordings of the measurement strips.

4 There were measurements taken during
5 the experiments and those strips had been thrown
6 away. But also, the information on the strips
7 was in the log books. All the log books were
8 numbered and I have the index of every one of
9 those boxes that he went through.

10 So I believe with my index if you look
11 at all of the information that he was able to go
12 through or NIOSH was you'd see there's probably
13 more information about power levels than what was
14 presented to the Work Group.

15 Chairman Kotelchuck asked if we had
16 badges for the CNL and LaVon responded that they
17 would look for personal documentation to verify
18 monitoring.

19 Chairman Kotelchuck expressed relief
20 that there was a transcript of the lead
21 scientist's interview, and that the Work Group
22 would be able to review it.

23 Was the transcript reviewed? Now, I

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1 believe there isn't a transcript, but I did
2 record the conversation and I will be adding it
3 to my comments.

4 Phil Schofield asked about --
5 concerning the cobalt sources. He asked about
6 the cobalt sources, how they were stored and
7 packaged, and what was their age to help
8 determine if there was a chance for leakage.

9 He also wanted to know if there were
10 any historical leak tests.

11 Was this addressed? LaVon said we
12 have a good history of when material was brought
13 in and what was stored in the facility up until
14 1989. See, this issue was only being looked at
15 till '89.

16 But the lead scientist mentioned in
17 his interview that he without any documentation
18 got an old lot of PU metal from Lawrence Livermore
19 National Lab and used it in experiments without
20 any documentation. It is recorded in my
21 transcript.

22 LaVon agreed to report back to the
23 Work Group the building -- oh, a cobalt-60 source

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1 was found in a cabinet in building 125.

2 Dr. Kotelchuck asked -- not building
3 but room 125.

4 Dr. Kotelchuck asked what building
5 this was in. LaVon said he would get back to him
6 and let him know what building it was in. I want
7 to know if that was ever followed up on.

8 Dr. Kotelchuck also wanted to know if
9 there was any documentation of the leak check
10 which I discussed earlier. Those were supposed
11 to be submitted.

12 I am submitting documentation with my
13 comments and hope to get a response before the
14 CML issues are closed and the expansion is
15 denied.

16 I don't believe that the CML lab with
17 the enormous amount of documentation that was in
18 those 35 boxes which I have an index to was
19 thoroughly and fairly evaluated.

20 I don't even know if there's a fifth
21 grade science student who would say that 5
22 measurements of a power experiment from 1,700
23 experiments could be indicative of what the power

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1 was. It's impossible.

2 And so I just hope that you all listen
3 to what the critical mass lab lead scientist who
4 had been at the site, had published a book about
5 the history of the CML, wrote a very extensive
6 index of the 35 boxes which I have, and published
7 papers on the CML.

8 I just hope that the Board will
9 respect his opinion about the ability to
10 reconstruct dose to the highly enriched uranium.

11 I have some of his incident reports.
12 I have 1989, two years after the last experiment
13 incident of his where he was moving products
14 around and there was an issue with -- he got
15 contaminated.

16 So, please take a look at some of my
17 documents in my last presentation of comments.
18 I asked the Board to add to the docket all of my
19 documents.

20 They were never added. I
21 specifically asked Ted Katz to do that. And that
22 was the issue with the inertial fusion machine in
23 883 in three separate rooms.

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1 And I also now have -- actually I just
2 said inertial fusion, but now I have
3 documentation showing there was an actual
4 inertial fusion machine in that building.

5 CHAIRMAN MELIUS: Stephanie, you need
6 to wrap it up. Your time is almost up.

7 MS. CARROLL: Okay. So, please,
8 first of all vote to expand the SEC because dose
9 cannot be reconstructed, especially because it's
10 a CML.

11 And if not, please give us more time
12 and allow the Work Group to review the 35 boxes
13 of information. Thank you very much.

14 CHAIRMAN MELIUS: Okay, thank you.
15 Anybody else on the phone that wishes to make
16 public comments?

17 Ms. Hand: Yes, this is Donna Hand.

18 CHAIRMAN MELIUS: Okay. Go ahead,
19 Donna.

20 MS HAND: Yes, the comment I'd like
21 to make is that in the last public meeting you
22 were giving documentation showing certain things
23 regarding the Pinellas Plant.

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1 Since then I received underneath the
2 Freedom of Information Act a copy of the Site
3 Research Database. And it shows 50 pages worth
4 of references regarding Pinellas Plant.

5 It also has -- they did a Site
6 Research Database just for the Pinellas Plant on
7 metal tritides. There's 10 references with that.

8 And then the public comment that was
9 issued by Pete Darnell but yet was not given to
10 me was also requested underneath that Freedom of
11 Information Act.

12 In the very first paragraph he
13 responds that the results of the SEC evaluation
14 at other DOE sites have no bearing on the Pinellas
15 Plant which is untrue.

16 The Board and NIOSH have been charged
17 by the statute to be uniform, and to be uniform,
18 and consistent, and timely. That is a mandated
19 duty.

20 So that first paragraph he is under
21 the assumption -- that's incorrect and violates
22 the statute and the duty that's within the
23 statute.

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1 It also -- in those Site Research
2 Databases you have that Sandia report that was in
3 2008 about resuspension and how difficult it is.

4 But yet that's been ignored, not only
5 for the Pinellas Plant metal tritides, but for
6 the Mound and the other sites.

7 The metal tritide issue is one that
8 you cannot do the internal dose because the data
9 was not there. And you can't go back and
10 recalculate it.

11 In fact, Pinellas has erbium,
12 scandium, titanium, zirconium, uranium, and --
13 which was just classified today.

14 The titanium went to Mound and they
15 have a problem with it because they kept on
16 escaping the glove boxes. It was hard to contain.

17 Peter Darnell also went on and
18 responded that all potential people were --
19 that's not the issue and that's not what the Act
20 requires.

21 The Act requires for the persons that
22 should have been monitored and were not
23 monitored. That's the methods that are in the

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1 regulations that the Board had to approve for to
2 be technically valid, and the President which is
3 the NIOSH was required to put in the regulation.

4 Everything else is application of the
5 methods and applications of the guidelines. The
6 guidelines also was mandating to be put into the
7 regulation after the Board reviewed it.

8 So, that's not the issue at all. Was
9 an employee monitored and did you characterize
10 his environment. That is the duty and the
11 mandated duty that's supposed to be uniform for
12 all the sites.

13 In 1973 the Atomic Energy Commission
14 did a report on tritium from several sites, and
15 in there was from Ward and from General Electric
16 neutron devices.

17 And they have five reports within that
18 one report. And that was in 1973.

19 And it stated that the tritium,
20 organic tritium would permeate and attach itself
21 to organic material. That is the polymers, the
22 plastics.

23 And it also will permeate stainless

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1 steel. The only thing that's difficult is the
2 aluminum and that's why the room 108 had aluminum
3 on the walls and they also wiped it down
4 continuously to keep the dosage down whenever the
5 HP goes through it.

6 Peter Darnell also mentioned about the
7 1990 Tiger Team and said yes, there was -- all
8 the sites have issues with it.

9 That wasn't the issue. The issue was
10 the Tiger Team said that the dosimetry records
11 were faulty because he waited too long.

12 So then the quality of the dosimetries
13 in 1990 was determined by the Tiger Team to be
14 defective. But yet we did not qualify. That
15 was the issue of the 1990 Tiger Team.

16 I can go on and on and on, but right
17 now I am preparing a letter to the Secretary to
18 challenge the SEC petition, the process, the
19 omission of material facts, the denial of equal
20 application of the law, and the breach of duty.

21 Because also with that Peter Darnell
22 responded that the Pinellas Plant did not have 28
23 radionuclides.

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1 However, Lockheed Martin and DOE in
2 the 1997 environmental report listed 28
3 radionuclides present at the Pinellas Plant with
4 4 of them being over the curies limit that was
5 allowed at that time.

6 Again, the Board just got through
7 saying that the Work Group for Pinellas Plant is
8 no longer. Well, the Board never approved the
9 2008 initial Site Profile Technical Basis
10 Document dose reconstruction, nor has it approved
11 the new ones that have just come out 10 years
12 later.

13 And it's a shame that 10 years passes
14 before you can say, okay, I'll send you the dose
15 reconstruction now.

16 Also, underneath the contract to Oak
17 Ridge there should be HPs reviewing that, and
18 those HPs have to have five years' worth of
19 training.

20 [Identifying information redacted]
21 who's the site expert for Pinellas Plant is not
22 an HP. He does not have five years' worth of
23 training. So that's a default right there.

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1 These are basic issues that began in
2 the very beginning whenever Melius and Munn
3 questioned that if the contractors would have
4 determined the scientific validity or not, and
5 would the contractors even look at all the
6 information from DOE and how accurate it would
7 be.

8 And that was back in the February
9 meeting of 2002.

10 I thank you for your time, but I
11 request that the Board now make sure that the
12 actual congressional intent of the law be upheld
13 and the duties of the responsible parties also be
14 upheld. Thank you.

15 CHAIRMAN MELIUS: Thank you, Donna.
16 Anybody else on the phone wish to make public
17 comments? Okay, hearing none I think Ted has two
18 sets of public comments to read into the record.

19 MR. KATZ: Thank you. These are both
20 related I think almost entirely to Rocky Flats.

21 The first is dated March 14, 2017 and
22 it's from [Identifying information redacted] who
23 was a former Rocky Flats worker for 22 years. So

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1 here's her statement.

2 "For the Advisory Board Members who
3 are not familiar, who have not read the Rocky
4 Flats grand jury report of 1992 the complete
5 report is available online" and I'm not going to
6 read the long link.

7 "Rocky Flats is" -- but that will be
8 published in the transcript for anyone who's
9 interested.

10 "Rocky Flats is the only nuclear
11 facility in the United States to have been raided
12 by the FBI, indicted and tried by a federal grand
13 jury.

14 "Federal Judge [Identifying
15 information redacted] approved the release of the
16 complete report as a matter of history.

17 [Identifying information redacted]
18 pleaded guilty to numerous environmental crimes,
19 the poisoning of public drinking water systems
20 and the falsification and destruction of
21 paperwork and records.

22 "They paid a fine of \$18.5 million.

23 "FBI agents discovered violations of

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1 the Clean Water Act and other environmental
2 statutes that included the illegal discharge of
3 pollutants, hazardous materials, and radioactive
4 matter into the Platte River, Woman Creek, and
5 Walnut Creek, and the drinking water supplies for
6 the cities of Broomfield and Westminster,
7 Colorado.

8 "These agents also uncovered a culture
9 of ongoing criminal misconduct which used illegal
10 means to achieve corporate bonuses.

11 "This report is based on a
12 preponderance of evidence considered by the grand
13 jury.

14 "Rockwell illegally stored thousands
15 of pondcrete and saltcrete blocks outdoors from
16 1986 through 1989.

17 "DOE and Rockwell manufactured a total
18 of more than 17,000 pondcrete and saltcrete
19 blocks weighing from 1,500 to 3,000 pounds.

20 "In 1987 Rockwell discovered a problem
21 with the hardening of the blocks so they
22 attempted to correct it by adding more cement.

23 "The modification did not work and the

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1 blocks took the form of mush or Play-Doh. Under
2 the exposure of the outside elements and the
3 crushing weight many of the cardboard containers
4 and others deteriorated significantly.

5 "In some cases the plastic liners
6 inside a box would rupture and the pondcrete or
7 saltcrete would then be released in a fluid or
8 powdery form as a spill of hazardous and
9 radioactive constituents.

10 "Rockwell informed DOE management
11 when the first spill of mixed waste occurred in
12 May of 1988. However, DOE did nothing in
13 response until April of 19" -- and it's left
14 blank. I'm not sure what the final year is.

15 "This information and much more is
16 documented for public viewing in the grand jury
17 report. The lies, corruption and collusion are
18 openly discussed by a federal judge and are
19 irrefutable.

20 "Why is this accumulation of flawed
21 protocol and implausible workmanship is
22 applicable to worker safety? What is my specific
23 interest?

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1 "My late [Identifying information
2 redacted] worked at the solar ponds making these
3 saltcrete and pondcrete blocks along with others.
4 Workers were knowingly and willingly exposed to
5 lethal working conditions without their knowledge
6 or consent.

7 "Some like my husband developed
8 kidney, liver, or bladder cancers.

9 "Subcontractors had immunity from
10 federal accountability. Rockwell illegally
11 buried waste, polluted public waterways and
12 drinking water, falsified paperwork, lied,
13 denied, and covered up.

14 "Rockwell lied to the government, to
15 the public, and to the employees.

16 "The grand jury report is undeniable
17 proof for the nuclear workers of the repeated
18 safety violations and mismanagement of the
19 subcontractors Rockwell International and EG&G.

20 "Not only were regulations ignored,
21 they were falsified and/or altered illegally.
22 Therefore Rocky Flats nuclear workers are
23 justified for compensation because of Rockwell's

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1 negligence.

2 "As Americans our country is formed by
3 our judicial system. So, this Presidential
4 Advisory Board must not ignore a federal court's
5 decision.

6 "Your role is not only adjudicatory
7 but investigatory. Read the grand jury report.
8 Do a White Paper on it. When you do you will
9 understand that by pleading guilty [Identifying
10 information redacted] admitted putting workers in
11 jeopardy and denying the workers their
12 Constitutional rights of life, liberty and the
13 pursuit of happiness.

14 "This Advisory Board is called upon to
15 stand up against the tide of corruption. In
16 God's name, in the name of humanity do your duties
17 as Americans. Vote to extend the Rocky Flats SEC
18 to include the grand jury verdict and extend the
19 SEC from 1983 to 1992."

20 And that concludes [Identifying
21 information redacted] remarks.

22 And then [Identifying information
23 redacted], MD, his comments.

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1 "Good afternoon, Dr. Melius and
2 Members of the Advisory Board. I am [Identifying
3 information redacted], SEC petitioner for the Dow
4 Madison and General Steel Industries Sites in
5 Illinois and Texas City Chemicals in Texas.

6 "Yesterday I was informed by Dr.
7 Ziemer that he would remove the TBD-6000 Work
8 Group recommendation to the Board concerning Rev
9 3 of GSI Appendix BB. I trust that happened this
10 morning.

11 "This evening I wish to summarize my
12 reasons why I believe it is premature for the
13 Board to vote tomorrow, on March 23, on the Rocky
14 Flats SEC 192 extension beyond 1983. I base this
15 on compelling new information that addresses the
16 longstanding mystery of the use of truckload
17 quantities of mag thor alloy metal sheets and
18 plates that 14 Dow Madison plants' affiants
19 attest was shipped to the Rocky Flats DOE site in
20 Jefferson County in Golden, Colorado.

21 "Glenn Podonsky of DOE and Peter
22 Turcic of DEE OIC DOL certified Dow Illinois as
23 a thorium AWE site in a letter dated January 8,

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1 2008.

2 "Some of the evidence for this
3 decision involved classified Livermore records.
4 DOE found that Dow Madison supplied the AEC with
5 mag thor alloy that was used in nuclear weapons
6 during the 1957 through '60, and that mag thor
7 nuclear weapons parts were produced through 1969.

8 "Yet mag thor continued to be produced
9 in large quantities at the Madison, Illinois
10 plant by owners other than Dow Chemical up until
11 the late nineteen eighties.

12 "Despite the strong evidence that Dow
13 Madison Site supplied mag thor alloy such as
14 HK31A and HM21 to Mallinckrodt and to Rocky Flats
15 DOE plants NIOSH, ORAU and SC&A have never been
16 able to definitively prove (a) that Rocky Flats
17 plant ever received such large quantities of mag
18 thor, (b) nor could a credible use be ascertained
19 for the use of this particular metal at RFP.

20 "That situation with respect to
21 credible knowledge about mag thor use at RFP has
22 changed over the past several years.

23 "RFP mag thor workers testimony has

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1 accelerated this past year so that now at least
2 five RFP workers have come forward to say that
3 they used mag thor alloy to hardware to mount
4 steel armor plate on secure ATMX DOE rail cars,
5 and secure Marmon and Fruehauf semi-truck secured
6 truck trailers at the mod center in building 440.

7 "The mod center is the transport
8 modification center. The Rocky Flats SEC 192 and
9 Dow Madison SEC 79 co-petitioners have joined
10 forces with other advocates to fill in the
11 details of mod center's secure ATMX 500 and 600
12 series rail cars and SST trucks.

13 "The engineering for these operations
14 was done at Sandia. RFT manufactured ATMX rail
15 cars ferried nuclear weapons parts including
16 Trident submarine warheads, and pits, and
17 triggers to the Pantex Plant in Texas.

18 "Some ATMX armored rail cars and white
19 train cars remain onsite at the Pantex Plant, at
20 the Kirkland Air Force Base Atomic Museum, and at
21 the Amarillo Railroad Museum near the Pantex
22 Plant.

23 "We now know that the Mound DOE plant

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1 in Miamisburg, Ohio also modified ATMX 500 and
2 600 series rail cars.

3 "Currently, most nuclear weapons
4 shipments occur by SST vehicles under the control
5 of the NNSA DOE Office of Secure Transport
6 headquarters in Albuquerque, New Mexico.

7 "Transport modification activities
8 are now consolidated to occur at the Kansas City
9 Plant.

10 "We know from the KCP Site Profile
11 update at this meeting that mag thor issues at
12 KCP remain the sole open issue.

13 "The Board needs more time to
14 investigate mag thor at KCP and at RFP.

15 "Separately, I am supplying the Board
16 and DFO with a confidential longer written
17 statement which contains the names of and some
18 contact information of 11 Rocky Flats former
19 workers who have knowledge about mag thor use in
20 the mod center at RFP, and about how to obtain
21 related shipping manifests, purchase orders, and
22 other information.

23 "This confidential information is not

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1 intended to be made public, but is for the Board
2 and NIOSH and their advisory contractors' use to
3 investigate mag thor at Rocky Flats DOE site in
4 Colorado.

5 "Because of all this information we
6 believe it is premature for the Board to close
7 the mag thor alloy issue for the Rocky plants and
8 SEC 192.

9 "We urge the Board to task SC&A and
10 NIOSH to task ORAU to investigate and interview
11 as many as possible of the 11 Rocky Flats plant
12 workers we provide in the confidential data that
13 accompanies this oral presentation. Thank you."

14 **ADJOURN**

15 CHAIRMAN MELIUS: Thank you and I
16 think that completes our public comment period.
17 And we'll reconvene tomorrow morning around 8:30.
18 So we'll see you all then. Thank you.

19 MR. KATZ: Thanks, everyone.

20 (Whereupon, the above-entitled matter
21 went off the record at 5:33 p.m.)

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