

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL
NATIONAL INSTITUTE FOR OCCUPATIONAL
SAFETY AND HEALTH

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ADVISORY BOARD ON RADIATION AND
WORKER HEALTH

+ + + + +

WORK GROUP ON URANIUM REFINING AWES

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FRIDAY
SEPTEMBER 7, 2012

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The Work Group convened telephonically at 9:00 a.m., Henry Anderson, Chairman, presiding.

PRESENT:

HENRY ANDERSON, Chairman
R. WILLIAM FIELD, Member
DAVID KOTELCHUCK, Member

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ALSO PRESENT:

TED KATZ, Designated Federal Official

RYAN ALBA

DAVE ALLEN, DCAS

HANS BEHLING, SC&A

CLARISSA EATON

JOHN MAURO, SC&A

BRENDA PATTERSON

L. MICHAEL RAFKY, HHS

LAVON RUTHERFORD, DCAS

JOHN STIVER, SC&A

WILLIAM THURBER, SC&A

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

2 9:00 a.m.

3 MR. KATZ: Okay, it's start time,
4 so let's begin with Roll Call. This is the
5 Advisory Board on Radiation and Worker Health,
6 the Uranium Refining AWE Work Group.

7 Let's begin with roll call and
8 then we'll address other matters. Let me
9 begin with Board Members.

10 And since we're speaking about
11 three specific sites, United Nuclear, Baker-
12 Perkins and DuPont Deepwater, please speak to
13 conflict of interest as well when you respond
14 to Roll Call, for all the agency-related
15 people.

16 (Roll call.)

17 CHAIRMAN ANDERSON: Okay, our plan
18 today, the first order of business on the
19 Agenda is discussion: finalize United Nuclear.

20 And what I'd like to begin with is if NIOSH
21 can give us an update on the action items we
22 had.

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1 And maybe we can -- I don't know,
2 Dave, if you've had a chance to read through
3 all the materials. I want to welcome Dave
4 Kotelchuck, who's a new member of the
5 committee, and our discussion on this
6 particular topic began before he joined us.

7 So if you have questions, Dave,
8 please speak up. If you've looked it over and
9 you see some things that you didn't, feel free
10 to ask away as well.

11 So with that, the first issue that
12 remained open was on the dose reconstruction:
13 when to apply the 50th percentile versus 95th
14 percentile. And, as I recall, this was a
15 separate issue, but the group felt it was more
16 of a -- it was not an SEC-related issue so
17 much as it was for the background Site Profile
18 documents. But if there's been -- if NIOSH
19 could give us an update on that?

20 MR. RUTHERFORD: Yes, Henry, I
21 could take care of that. This is LaVon
22 Rutherford.

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1 CHAIRMAN ANDERSON: Yes.

2 MR. RUTHERFORD: As you've
3 mentioned, the discussion was whether the use
4 of the 50th percentile distribution or the
5 95th percentile of the distribution was more
6 appropriate for the coworker model.

7 As you probably remember, we are,
8 NIOSH is currently using the 50th percentile,
9 and SC&A felt that the 95th percentile was
10 more appropriate. Their thoughts centered on
11 that when we typically use a coworker model
12 it's for individuals that we feel should have
13 been monitored but were not.

14 We would normally have some people
15 monitored during the period, you know,
16 typically the higher-exposed individuals. In
17 this case we had a gap period from 1961
18 through most of 1962. In that period, no one
19 was monitored.

20 The site had stopped bioassay
21 during that period and ultimately restarted in
22 late of 1962. So if you had an operator and

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1 they only worked 1961, in that period when
2 there was no monitoring, that gap period, and
3 they worked in the higher-exposed areas, the
4 50th percentile would not be an appropriate
5 intake to apply to the individual for dose
6 reconstruction.

7 DCAS, we committed to go back and
8 review this issue. We also indicated that we
9 would see if we had any claimants who only
10 worked during the gap period. We did that.
11 Of the existing claimants, none of them solely
12 worked during the gap period.

13 And this is important. Because if
14 you had individuals that worked on both sides,
15 outside of the gap period, then typically the
16 higher-exposed individuals would have
17 monitoring data, and their monitoring data
18 could be used during the gap period.

19 However, even though we don't have
20 any claimants that solely worked during the
21 gap period, we did have some further
22 discussions on this matter, and we have

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1 changed our opinion.

2 And we do feel that the 95th
3 percentile of the distribution is probably
4 more appropriate for the gap period.
5 Specifically for individuals that we would
6 expect to be in the higher exposure areas,
7 like operators. So we will modify the Site
8 Profile for the gap period.

9 And we'll modify it to indicate
10 that we will use the 95th percentile. And
11 ultimately, we will have to review our
12 existing claims to see if we have claims that
13 will be affected by that.

14 CHAIRMAN ANDERSON: Okay. Thank
15 you.

16 MR. RUTHERFORD: I wanted to add
17 another thing on this note. It's not really
18 addressed in the issues on there. But I know
19 it's important to Hans, and it's also
20 something that we had committed to discussing.

21 Hans had pointed out that he had
22 actually identified some bioassay data that

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1 was taken in 1960. It was a specific
2 assessment if I remember correctly. And Hans
3 had taken those urine bioassay samples and
4 calculated intakes based on them.

5 And he felt that those intakes
6 would actually -- indicated that they were
7 higher than what we would have applied to our
8 coworker model. And ultimately the question
9 came up, you know, did we use those intake
10 values in our coworker model? Can we recreate
11 Hans' numbers?

12 And, you know, and ultimately we
13 said we would go back and take a look at that.

14 We have tried to recreate Hans' calculations.

15 And we do not get the same numbers that Hans
16 came up with. However, what we would like to
17 do -- Dr. Hughes, who worked on this mostly
18 for us during the period, she is out right
19 now. But what we would like to do on this
20 issue is to have Lara, Dr. Hughes, get with
21 Hans and review his numbers.

22 If we see his numbers are correct

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1 and also will verify that those intake values
2 were used in, or that those urine samples were
3 used in our coworker model.

4 And if we have to make
5 modifications to our coworker model, we'll do
6 that. That's a Site Profile issue that
7 ultimately again, it affects that. But I know
8 that's something we committed to Hans. And I
9 was talking to John Mauro the other day, and I
10 wanted to make sure I got that out.

11 DR. BEHLING: This is Hans. I did
12 in fact send to NIOSH twice, the methodology
13 and numbers that we used to devise the values
14 that I cited in my review of United Nuclear.

15 I think the first time around I
16 sent the actual calculations and the
17 calculation runs to David Allen. And I think
18 most recently I updated some dates, so I
19 submitted the same calculations again.

20 So somebody at NIOSH should have
21 the numbers that I used to derive my IMBA
22 runs. And you can use that to see what, if

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1 anything, you find at fault with my numbers.

2 MR. RUTHERFORD: Yes. We do
3 actually have your IMBA runs. And you are
4 correct. You did send those over to us. But
5 there are some issues that we had with the
6 calculations that we would really like to
7 discuss with you. And I think it's more of a,
8 you know, what you used where, and how you
9 used it, versus how we would use it.

10 DR. BEHLING: I mean, let me ask
11 you, you've only made an oblique reference to
12 the fact that your numbers do not necessarily
13 coincide with mine, without telling me how
14 different are your numbers from the ones I
15 posted in my review.

16 MR. RUTHERFORD: Well our numbers
17 were lower than yours. However, they did
18 bring up similar questions that you had. And
19 that's why we wanted to get back, verify that
20 the urine samples that you had identified were
21 using our coworker model. And also --

22 DR. BEHLING: Yes. Let me just

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1 be sure. The numbers that I used were not
2 numbers for the coworker. They were unique
3 numbers that were defined by two operators.

4 These were empirical values that I
5 found in the documents with two operators that
6 I identified as operator AAA and operator BBB.

7 So I'm not saying that they represent the
8 universe of workers. These were numbers of
9 bioassay data for two individuals, specific
10 numbers.

11 MR. RUTHERFORD: Okay. I thought
12 the point was that we needed to verify that
13 those numbers were used within the coworker
14 model. Either way, if they're urine data we
15 would have used it in the coworker model. We
16 should have used it in the coworker model
17 anyway.

18 DR. BEHLING: But they would have
19 actually been diluted by virtue of the fact
20 that these two people may have been at the
21 high end of exposed individuals.

22 MR. RUTHERFORD: That's correct.

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1 DR. MAURO: LaVon, this is John
2 Mauro. The way I understand the issue is
3 this. Here we have real people with real
4 data, during the time period when the bioassay
5 was collected.

6 MR. RUTHERFORD: Correct.

7 DR. MAURO: And using that real
8 data for those real people we come up with an
9 intake and a dose. Now in a way they
10 represent people that, you know, you would
11 actually do those people using their real data
12 of course.

13 But the question was, this is
14 really a test of the adequacy of your coworker
15 model. That's really the question I believe
16 that is on the table.

17 MR. RUTHERFORD: Right. And
18 that's the way I understood it too, John.
19 It's the question of if you calculate these
20 intakes, and these intakes are actually beyond
21 the intakes that are in your coworker model,
22 then it brings a question to your coworker

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1 model.

2 DR. MAURO: And now so I wanted --
3 The end of the question is, now that you're
4 going with the 95th percentile, which of
5 course brings up what the intakes would be in
6 your coworker model, is there parity between
7 these people who represent, I guess, high end
8 people with real data?

9 And if you were to -- let's say
10 for some strange reason you didn't have the
11 data for these two people, and you used the
12 coworker model instead.

13 MR. RUTHERFORD: Right.

14 DR. MAURO: Would you come up with
15 intakes for these people that would be
16 compatible and consistent with what their
17 intakes actually were? It's a way of sort of
18 validating your coworker model, so to speak.

19 MR. RUTHERFORD: Right. I
20 certainly agree. And I believe that that's
21 exactly where I was coming from, what we
22 needed to do in verifying our numbers versus

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1 Hans' numbers.

2 Either way the numbers should look
3 like -- if we didn't have data for those
4 individuals and we used the coworker model,
5 they should still be representative --

6 DR. MAURO: Right.

7 MR. RUTHERFORD: -- in the
8 coworker model.

9 DR. MAURO: And the question then
10 becomes -- I understand that when you run
11 these people, these real people, you're coming
12 up with intakes that are different than Hans'.
13 Maybe a little lower.

14 But I guess my question is, when
15 you run these people, you're doing the work.
16 Do you come up with intakes that would be
17 bounded, or at least comparable to, if you
18 were to actually use the coworker model, now
19 that you're using the 95th percentile? Do you
20 see where I -- notwithstanding any let's say
21 differences we have in the way we ran these
22 people.

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1 MR. RUTHERFORD: Right.

2 DR. MAURO: But the more
3 fundamental question is, you know, we'll work
4 that out.

5 MR. RUTHERFORD: Right.

6 DR. MAURO: But I guess from your
7 perspective you feel that your coworker model
8 now would be bounding for these workers also.

9 MR. RUTHERFORD: Yes.

10 DR. MAURO: Good. Thank you.

11 DR. BEHLING: And again, I just
12 wanted to reemphasize what I said earlier. In
13 Table Number 4 in my write up, we are talking
14 about operator AAA and operator BBB. Two very
15 unique individuals for whom we have bioassay
16 data.

17 And when I ran the IMBA codes for
18 Type S, I ended up with a value that's 3.4
19 times higher than the NIOSH value, as I
20 indicated in my write up.

21 And then I used Type N. The
22 differences between the 50th percentile value

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1 and what I calculated is a full 15.4 times
2 higher. And those are the numbers that --

3 If you're going to look to verify
4 my numbers, use the actual bioassay data for
5 those two individuals, not a collective or
6 average value for the coworker model. That's
7 not what I was trying to do here. As John
8 pointed out, these were two --

9 MR. RUTHERFORD: I understand,
10 Hans. That's exactly what we were looking at
11 doing, exactly.

12 DR. MAURO: So then where we are
13 now is just a matter of seeing why we're
14 coming up with different intakes. In some
15 places we ran them a bit differently than you
16 did. And we'll work that out.

17 MR. RUTHERFORD: Yes. And that's
18 all -- And Dr. Hughes is due back very soon.

19 And I think we'll get her right with working
20 with Hans on that. And we'll get that figured
21 out.

22 CHAIRMAN ANDERSON: And what we'll

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1 do on our committee is, we'll just tab this as
2 an action item. We'll hold off on the Site
3 Profile, not close that out on United Nuclear.

4 So that we can -- next time you can give us
5 an update on this.

6 MR. RUTHERFORD: Yes. That makes
7 sense to me.

8 DR. MAURO: The way I see it, the
9 real -- I agree that this is a Site Profile
10 issue. And I think that, Bomber, that your
11 approach with the 95th percentile does
12 satisfy.

13 But now we have this little, like
14 lingering side issue. Why are we coming up
15 with different numbers? But it's nice to
16 close that loop if we can. I see it as having
17 no bearing, in my opinion, on the SEC related
18 issues.

19 MR. RUTHERFORD: Okay.

20 DR. THURBER: This is Bill
21 Thurber, just a question of clarification,
22 LaVon. Are you going to use the 95th

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1 percentile over the entire period, or just
2 over the gap?

3 MR. RUTHERFORD: No. Over the
4 gap. Are we there?

5 DR. THURBER: Yes. Then if you're
6 only going to use it over the gap, then the
7 thought that using the 95th percentile might
8 bring the estimated intakes for operators AAA
9 and BBB closer to the coworker model, doesn't
10 hold as much weight.

11 MR. RUTHERFORD: I see where
12 you're going with that, Bill. But they
13 recognize that what we're saying is the
14 individual prior to -- prior to the gap period
15 we have the higher-exposed individuals were
16 monitored.

17 Post-gap period the higher-exposed
18 individuals were monitored. It's only during
19 the gap period where the argument that the
20 higher-exposed individuals were --

21 Well the gap period is the only
22 period where we have indication that no one

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1 was monitored. And therefore, a 95th
2 percentile for the higher-exposed individuals,
3 it makes sense.

4 DR. THURBER: No. I understand
5 what you're saying. I'm not sure that
6 everyone was clear on that point.

7 MR. RUTHERFORD: Okay, okay.

8 DR. MAURO: Yes, Bomber, with
9 regard to the other time periods where you do
10 have data, as always is the case sometimes the
11 data's incomplete. Sometimes you have workers
12 that were not bioassayed when perhaps they
13 should have.

14 You're going to be using the
15 coworker model in its more classic sense.
16 Whereby, you know, if you have to use a
17 coworker model to sort of fill in gaps for the
18 periods that there are data, but they're
19 usually not complete, you know.

20 I assume you're using the same
21 coworker model, but you may draw upon the 50th
22 percentile in those cases, as opposed to the

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1 95th percentile.

2 MR. RUTHERFORD: That's correct.

3 DR. MAURO: Okay. And the
4 justification would be that the people who, if
5 you did have a monitoring program and you
6 could make an argument for any particular
7 worker, you could decide whether or not this
8 particular worker, that may not have data even
9 though others do during the time period.

10 But that's a judgement made by
11 NIOSH as to whether it's appropriate to assign
12 the 50th or 95th percentile to that person. I
13 understand that often you use the 50th,
14 because if the person wasn't monitored your
15 general philosophy is, he wasn't monitored
16 because he probably didn't have as high a
17 potential as others. We understand that.

18 MR. RUTHERFORD: Yes. And I
19 think, you know, during the earlier period,
20 you know, we get a case that comes in that
21 clearly looks like an individual that, you
22 know, was working in a higher-exposed area,

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1 we'd make that judgement.

2 DR. MAURO: Yes. I think we're
3 philosophically, we're seeing the problem the
4 same way. We don't always see it the same
5 way. But I'm glad we sort of converged.
6 Thank you.

7 MR. RUTHERFORD: Okay.

8 CHAIRMAN ANDERSON: Okay. We sort
9 of talked a bit about -- I think we've settled
10 the first 50th, 59th. We now have an action
11 item to get an update on how to conclude this
12 discussion, which I think at some point we'll
13 also report to the larger Board.

14 Because if this can be used as a
15 validation exercise as well for the use of the
16 coworker model, I think that would be
17 interesting to everyone as well.

18 Next issue we talked a bit about.

19 And that's the gap period there, '61 to '62.

20 And did we get any further examination or
21 explanation of the air sampling change for the
22 Green Room?

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1 MR. RUTHERFORD: Yes, there's a
2 little -- I'll just give an update. I don't
3 know if they could give really that much more
4 information. But I can tell you what was
5 done.

6 The second item, as Henry had
7 mentioned, was further examination and
8 explanation of air sampling changes for the
9 Green Room for 1961-'62.

10 Dr. Field, had noted from a White
11 Paper on air concentration data from the '61
12 to '62 that there was a drop in data points
13 from 1961 to 1962. And that wasn't only the
14 Green Room, the Red Room was as well.

15 And, you know, the question was,
16 why was there a drop in data points? And we
17 had speculated at the time that, you know,
18 while it could have been a change in
19 production levels, we're not sure. And, you
20 know, we'll go back and see if we can find
21 enough information to determine what the
22 change was.

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1 If you go back and look at this
2 further. And, you know, we thought, or we
3 still believe that this could have been a
4 change in production levels. However, we
5 could not verify that.

6 Also we want to point out that, you
7 know, at the end of the 1960 -- or during the
8 '62 period was when they discovered the high
9 airborne levels and the prior exposure levels.

10 And ultimately started the engineering
11 changes in the facility to reduce those
12 concentrations.

13 And so it could have been -- Just
14 looking at the data points we have in '62,
15 most of the data points in '62 are earlier in
16 the period. So that could be another
17 explanation.

18 But without having production logs,
19 and without having additional information, we
20 can't verify that. I think the thing to point
21 out is that, you know, our dose reconstruction
22 approach is based on urine data.

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1 And, you know, reconstructing of
2 individual dosage for urine data. I mean, we
3 use their individual urine data or the
4 coworker model. So the air sampling is just
5 not used in our approach.

6 But it was brought up by Dr. Field.
7 And we did look into it further. We just
8 can't come up with a specific answer for it.

9 MEMBER FIELD: And I really
10 appreciate you checking it out further.
11 Thanks.

12 CHAIRMAN ANDERSON: Okay. I
13 appreciate that as well. I think the last
14 open item that we have here is, there was an
15 opportunity to interview an item plant worker
16 to get more information. This was a activity
17 that was specifically requested by the
18 petitioners.

19 And it's unfortunate, but as
20 everyone knows often getting these released
21 takes some time. And it did so in this case.

22 But we now do have the redacted interview

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1 that everybody should have seen. And, NIOSH,
2 do you want to discuss this and --

3 MR. RUTHERFORD: Yes.

4 CHAIRMAN ANDERSON: -- indicate how
5 this may firm some of the issues that we've
6 been discussing?

7 MR. RUTHERFORD: Yes. I believe
8 the interviewee is on the phone.

9 CHAIRMAN ANDERSON: Oh.

10 MR. RUTHERFORD: And if he is --

11 CHAIRMAN ANDERSON: Oh, go ahead.

12 Thank you.

13 MR. RUTHERFORD: If he is I want to
14 personally thank him for his time and the
15 information he provided. It was very
16 informative.

17 Although I was unable to be on the
18 actual call, still we had a very challenging
19 time. The individual had issues. We had
20 trouble getting in touch with him, trouble
21 getting time scheduled.

22 We were initially told through our

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1 classification people that it needed to be
2 conducted in a very specific area, you know,
3 classified area. And ultimately that changed.

4 But I wanted to thank him for his
5 perseverance with us in getting this interview
6 done. Because it was a very informative
7 interview.

8 More detail concerning the time
9 plant operation, the equipment used in the
10 plant, the general layout, the number of
11 workers, different types of workers.

12 We heard about the potential
13 hazards and the exposure points. We also
14 heard about the personal monitoring, including
15 bioassay and TLDs. It was, again, a very
16 informative issue.

17 It got into the details of the
18 operation and the clothing worn, a lot of
19 different things besides some of the
20 equipment, different chemicals used, and so
21 on. So as I've mentioned a very informative
22 interview.

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1 And as Henry had mentioned, the
2 interview was provided to the Board Work Group
3 and FDNA. From our perspective, from DCAS's
4 perspective, the interview did not present any
5 new information that would affect our current
6 dose reconstruction approach.

7 It provided great detail and way
8 more knowledge on the items that we had prior
9 to it. But our current dose reconstruction
10 approach is still appropriate with using the
11 bioassay and the TLDs and the external
12 exposure information that we have. You know,
13 and that's pretty much all I have on that.
14 I'll answer any questions.

15 CHAIRMAN ANDERSON: Then since we
16 have the interviewee on the phone, keeping in
17 mind security issues here, I hope you got an
18 opportunity to look at the summary, that
19 redacted summary of your interview.

20 And if you have any comments
21 concerning this -- do you feel it pretty
22 accurately reflects the interview? We know it

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1 went on, and you were a wealth of information.

2 And again, we appreciate your time and
3 willingness to participate in this.

4 And I would just, on behalf of our
5 committee and Board, thank you. And also I
6 think point out to Board Members and NIOSH the
7 importance of this and his task.

8 And to get these interviews and get
9 the information on security issues that were
10 discussed redacted from the notes of that to
11 make it public.

12 So it can take quite a bit of time,
13 but I think it -- From my perspective anyway
14 it was well worth that effort. And there
15 aren't a lot of opportunities on other sites
16 for such interviews. You really need to take
17 advantage of them. Do you have any comments
18 on it?

19 MR. ALBA: This is Ryan Alba from
20 United Nuclear. I have not so many comments,
21 except the reason we did the interview was
22 basically I was some concerned that the

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1 internal exposure wasn't covered as maybe as
2 it should be. There were several --

3 And I pointed out several exposure
4 hazards were internal hazards in the plant and
5 around certain equipment. And that's, you
6 know, I had no axe to bear.

7 Of course I've felt that from
8 listening to your previous session, that there
9 was some lack of information concerning the
10 internal exposure rates in the item plant
11 itself. And that's the reason I did the
12 interview.

13 And other than the redacted part,
14 which I would rather have seen in there. I
15 think it made the point better. But that
16 can't be helped. But that's the reason I did
17 the interview. And I'm fairly satisfied with
18 the interview, yes.

19 CHAIRMAN ANDERSON: Well good.
20 Thank you. We always like that kind of
21 feedback of having the opportunity with you on
22 the phone. That makes it more direct. NIOSH,

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1 any other thoughts on the internal exposure
2 issue that he raises?

3 MR. RUTHERFORD: No. And he did, I
4 mean, he did point out some exposure areas
5 that we had not initially recognized. And as
6 I mentioned, the detail that we got in that
7 interview was definitely way more detail than
8 we had on the item plant.

9 We were actually somewhat surprised
10 we were able to get the redacted information
11 we got. But just having the bioassay
12 information that we have, it allowed us to
13 reconstruct that internal dose.

14 CHAIRMAN ANDERSON: Okay. Because
15 I seem to recall you saying that. But the key
16 will be, can we identify the individuals who
17 in fact may have had that exposure, so it can
18 be included in their reconstruction?

19 MR. RUTHERFORD: Well we recognize
20 that the individual bioassays for those
21 individuals will take care of that.

22 CHAIRMAN ANDERSON: Okay. Thank

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1 you. Bill or Dave, do you have any further
2 questions?

3 MEMBER FIELD: Yes, this is Bill.
4 I'm fine, thank you.

5 CHAIRMAN ANDERSON: Dave? Dave, if
6 you're there you may be on mute.

7 MEMBER KOTELCHUCK: I may have
8 been. Anyhow, I don't have any further
9 questions, and wanted to thank the plant
10 worker who gave the interview.

11 And it was very useful to me
12 certainly as a new Board Member, committee
13 member, to understand what was going on. So
14 thanks a lot.

15 CHAIRMAN ANDERSON: Okay. I think
16 we've had SC&A. Do you have any other
17 questions of issues you think we need to
18 discuss before we move to public comment?

19 DR. MAURO: This is John. No, I
20 don't.

21 CHAIRMAN ANDERSON: Okay. We have
22 a number of public folks on. Do you have

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1 additional comments or questions you'd like to
2 raise?

3 MS. EATON: First, can you hear me?

4 CHAIRMAN ANDERSON: Yes.

5 MS. EATON: I just want to
6 personally thank Hans for all your work that
7 you're doing. I have a few mixed emotions.
8 You say that he was a wealth of information,
9 but yet nothing that can be useful as part of
10 this discovery process.

11 But, you know, the time where the
12 '62 period that was discovered with the higher
13 concentrations, you know that there was higher
14 concentrations, but you can't verify it
15 because there was a lack of monitoring
16 records.

17 I'm real skeptical about this whole
18 process at this point. I know there's a lot
19 of differences and analysis between NIOSH and
20 SC&A, and I'm not trying to step on anybody's
21 toes.

22 But it is somewhat confusing to the

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1 lay person when, you know, we have data but we
2 don't. We don't have data, but this is what
3 we feel. Everything just seems to be out of
4 balance. And that's all I have to say. Thank
5 you.

6 COURT REPORTER: This is the Court
7 Reporter. I wasn't sure who was speaking just
8 now. Was it Clarissa or Brenda, ma'am.

9 MS. EATON: Clarissa Eaton, ma'am.
10 Thank you.

11 COURT REPORTER: Thank you.

12 CHAIRMAN ANDERSON: I can
13 appreciate your, that it is sometimes
14 confusing. And the issue here that we really
15 need to, or NIOSH comfortably can address, is
16 when there is a lack of information, can we
17 bound those exposures using coworkers or other
18 pre-existing data.

19 So virtually all these sites have
20 some kind of missing data. And the challenge
21 is how do we come up with a reasonable
22 approach to estimating what the exposures may

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1 have been, once we've identified that in fact,
2 where these claims of exposures --

3 And you heard that the decision
4 here was to use the upper 95th percentile as
5 part of that estimate, where in other
6 circumstances we would have used the 50th
7 percentile, which is half the people may have
8 been above and half below.

9 But in this particular instance,
10 because of the information and the unusual
11 exposure circumstances that may have occurred,
12 we're using a much higher --

13 We're having an estimate that's
14 towards the higher end of the possible
15 exposures. So I don't know. NIOSH do you
16 have any other comments you'd like to make to
17 address these issues?

18 MR. RUTHERFORD: No. I mean, I
19 think you said it. I think that, you know,
20 the period of concern, you know, the end --
21 No, I think he really covered it. And I don't
22 think any additional information from me can

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1 help.

2 CHAIRMAN ANDERSON: Okay. With
3 that I think we've pretty well come to
4 agreement. I don't think we need to go
5 through the exposure, the matrix that we
6 closed out.

7 We will ask SC&A to maybe put
8 together the presentation for me, for the
9 Board out in Denver. So we will have a recap
10 of all that's gone on over the last couple of
11 years related to this site. So we'll have a
12 close out presentation there.

13 But I would entertain again the SEC
14 -- I don't have the exact terms here, but
15 NIOSH, can you describe exactly what was the
16 certified group?

17 MR. RUTHERFORD: Yes. It was the
18 Class evaluated by NIOSH was all employees
19 that worked in any year the United Nuclear
20 Corporation hematite site from January 1, 1958
21 through December 31, 1973. And the residual
22 period January 1, 1974 through July 31st,

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2 CHAIRMAN ANDERSON: Okay. And I
3 think as we early on learned, there really is
4 quite a bit of data available that NIOSH felt
5 they could use to do the dose reconstruction.

6 And where we have focused is this
7 gap period on whether or not it was feasible
8 to use the coworker model during that '61 to
9 '62 period, and then again from that coworker
10 model, what values would we use. And I think
11 we've resolved those issues.

12 So either I can do it, I guess. Or
13 either Bill or, probably Bill, since you've
14 been on it longer. If you have a motion for
15 the committee as to what recommendation we'd
16 like to bring to the Board out in Denver,
17 please make such a motion.

18 MR. RUTHERFORD: He may be muted.

19 CHAIRMAN ANDERSON: Bill, are you
20 there?

21 MR. KATZ: Bill, are you on the
22 line?

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1 MEMBER FIELD: Yes. On mute,
2 sorry.

3 CHAIRMAN ANDERSON: That's okay.

4 MEMBER FIELD: You're asking, you
5 know, what --

6 CHAIRMAN ANDERSON: Well we need a
7 motion as to do we accept NIOSH's conclusion
8 to deny the SEC. Because they feel they can
9 do the dose reconstruction for individuals
10 that may have been exposed during the petition
11 periods.

12 MEMBER FIELD: No. Right now I
13 feel that I do agree with that. I think they
14 can do the dose reconstruction. I am a little
15 concerned though from the comments we heard
16 today about the redacted information.

17 It's always hard to know, you know,
18 what role that may play going into such
19 decision making. I guess we have no, you
20 know, no other choice than not be available to
21 see that information, is my understanding. Is
22 that correct?

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1 MR. RUTHERFORD: Well actually I
2 think that there's probably a way to get a Q-
3 cleared person from the Board that could
4 probably get in to see that information.

5 But, you know, the only thing I'm
6 going to say on that Bill, because I don't
7 want to lead anybody anywhere on that.
8 Because I think you got to see it for
9 yourself, is the current bioassay data we have
10 is going to address the internal scope.

11 MEMBER KOTELCHUCK: I'm not --
12 This is Dave Kotelchuck. I'm not clear where
13 the redacted information is. I read the
14 reports that were on the website. But
15 precisely where does that come in, the
16 redacted information?

17 MR. RUTHERFORD: Well what happens
18 is, we did the interview. The interview was
19 sent to the Department of Energy. Department
20 of Energy, because it was a Navy, you know,
21 they produced fuel for the U.S. Navy.

22 It was submitted to DoD and they

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1 were the, they're the ultimate group that make
2 the final determination on the interview, the
3 redaction.

4 MEMBER KOTELCHUCK: Ah, ha. Okay.
5 All right. Thanks.

6 DR. MAURO: Henry, this is John
7 Mauro. I understand that you might be moving
8 forward with the recommendation. And the only
9 suggestion I would have is, since the
10 calculations that Hans did, and that Lara
11 Hughes did, represent one way in which you
12 could validate that 95th percentile that was
13 selected for the coworker model for this gap
14 period.

15 Certainly it's, you know, it's
16 always a weight of evidence. And if you could
17 show that, yes, we picked some pretty high end
18 people where we do have data. And even for
19 them the coworker model would work, you know,
20 we have real data.

21 So I think the degree to which we
22 could resolve the differences between Hans'

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1 calculations and Lara's would be very helpful
2 to the Work Group and the Board.

3 Because it would be one more
4 argument that, you know, could made why
5 there's a degree of confidence that the
6 coworker model is, in fact, plausible and
7 bounding.

8 CHAIRMAN ANDERSON: Well do you
9 think we can resolve this in the next two
10 weeks? And if we -- I guess what I'd like to
11 do, I mean, we have postponed this a number
12 of times. And I guess I would like to --

13 I know the petitioners are
14 frustrated by the length of time and our
15 concerns. But I think we do need to draw
16 this, bring this to a close. And I think we
17 need to make this presentation to the Board.

18 If part of that discussion could be
19 Hans and NIOSH -- so we could answer what you
20 said there. If it seems to be appropriate, or
21 if there seems to be some concern that the
22 95th wasn't covered in this period.

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1 And, you know, the whole Board
2 would be hearing that. And that may make some
3 Board Members change how they might view
4 approval of NIOSH's position on the SEC.

5 MR. RUTHERFORD: I'd like to say
6 something. You know, this is a -- we've
7 already discussed it. This is a Site Profile
8 issue. I mean, this is not an issue
9 concerning the SEC.

10 And, you know, the data is there.
11 Whether we end up using Hans' data, or we end
12 up using our data, either one, it's there.
13 That data's there.

14 It's not going to change that
15 decision of, you know, it's a Site Profile
16 issue. It does not affect the SEC. So I
17 don't see where that should be a hold up in
18 moving forward.

19 MEMBER KOTELCHUCK: Dave
20 Kotelchuck. I'm not so much worried that we
21 will change our vote. Some people may. But
22 that's not the issue. I think the issue --

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1 I'm a new Board Member. It's clarity. I
2 wasn't clear about the redacted information.

3 Frankly, in the next two weeks I'll
4 look a little more carefully to try and
5 understand how that played a role. And also
6 look this over. So it is, if it can be done
7 in the next couple of weeks it would help
8 provide clarity so that we can act on it.

9 MR. RUTHERFORD: Dave, I wasn't
10 talking about the redacted portion of the
11 interview. I have no problem -- I understand
12 that issue there. And I understand the --

13 CHAIRMAN ANDERSON: So the coworker
14 model really was the issue.

15 MEMBER KOTELCHUCK: Okay.

16 CHAIRMAN ANDERSON: Is the use of a
17 coworker model in this particular facility,
18 you know, appropriate?

19 MEMBER KOTELCHUCK: Yes.

20 CHAIRMAN ANDERSON: Because we
21 don't have measurements through -- all the
22 other periods we have measurements. Dose

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1 reconstructions can be done. The main concern
2 here is there were no measurements during this
3 '61, '62 period.

4 There may have been some somewhat
5 unusual exposures. There is some coworker
6 data. And, you know, our policies have been
7 in such instances we look to the next step
8 down for dose reconstruction, is to use the
9 coworkers.

10 We call it a coworker model. But
11 as Bomber's pointed out it's the data from
12 coworkers that then can come up with a dose
13 estimate, based not on the individual, but the
14 coworkers.

15 MEMBER KOTELCHUCK: Okay. So that
16 we will be able to make a decision either way.

17 I don't know how 50 to 95 percent will change
18 the results. But what you're saying is that -
19 -

20 CHAIRMAN ANDERSON: It just
21 provides a broader balance.

22 MEMBER KOTELCHUCK: Yes.

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1 CHAIRMAN ANDERSON: Where it's more
2 likely that exposures were unlikely to be over
3 that. And, you know --

4 MEMBER KOTELCHUCK: Right. So we
5 would be, if we were to pass this, or if we
6 were to make this recommendation, then we
7 would simply say to them go ahead with the
8 change and we that will then determine the
9 decisions on the compensation.

10 CHAIRMAN ANDERSON: Yes.

11 MEMBER KOTELCHUCK: Yes. I'm
12 comfortable with that.

13 MS. EATON: Can I ask a question?

14 CHAIRMAN ANDERSON: Sure. Go
15 ahead.

16 MS. EATON: If you're only using
17 data from two employees, can I ask you how
18 many claimants have come forward, versus how
19 many employees were there at the time that you
20 know of? Because we know a lot of records are
21 missing.

22 But I'm unsure about the fact that

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1 you're only using two workers out of many
2 years of production. And the most hottest
3 period is missing data. Then we add the fact
4 that, you know, there was a owner who was, you
5 know, considered unreliable.

6 You know, there's so many -- It
7 just seems like there's so many things working
8 against these workers when it comes to this
9 dose reconstruction. I mean, we all know the
10 site, to this day, is still contaminated.

11 It's left the site. And I'm not
12 talking about radioactive particles. Although
13 I'm sure there was in the air and the dumping
14 processes that went on there, according to the
15 Department of Natural Resources. But, you
16 know, the housekeeping there was next to zero.

17 And it was so bad that it left the
18 site and nobody even knew, except, you know,
19 the residents around the plant whose wells
20 ended up contaminated. You know, it's very
21 obvious that the people in charge were not
22 taking charge.

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1 And then when we start talking
2 about the dose reconstruction, you're basing
3 all this data off of two workers. But, you
4 know, what's our other choice, you know?

5 I'm not even sure half the workers
6 even know about this program. They're
7 probably dead and gone by now. But the whole
8 thing is just really sketchy to me. I'm
9 sorry, that's my opinion.

10 CHAIRMAN ANDERSON: LaVon.

11 MR. RUTHERFORD: Yes. I'd like to
12 clarify a couple of things here.

13 CHAIRMAN ANDERSON: Go ahead,
14 LaVon.

15 MR. RUTHERFORD: Yes. We're not
16 basing anything on the two workers. The
17 discussion that was on the two workers that we
18 were discussing earlier were two specific
19 workers that Hans had pulled out, out of a
20 number of employees that we had personal
21 monitoring data.

22 If you look back in the initial

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1 Evaluation Report, the initial Evaluation
2 Report identified urine samples per year, the
3 number of samples per year all the way
4 beginning back in 1958. We have urine data on
5 a large portion of the population at the site.

6 So the only thing the two -- The
7 ones that, there was actually a specific pool
8 that Hans had pulled from of urine data.
9 These were a group of individuals that were
10 considered higher-exposed individuals.

11 And the discussion was to possibly
12 use those as a validation point for our
13 coworker model. So I don't know if we
14 misspoke, if it wasn't very clear how we
15 spoke.

16 But we definitely have way more
17 data than for individuals than just two.
18 There's a large percentage actually of data
19 for individuals.

20 MS. EATON: And who provided this
21 data?

22 MR. RUTHERFORD: All of this --

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1 Who provided the data?

2 MS. EATON: Yes.

3 MR. RUTHERFORD: It was actually --
4 It was provided from the site. And I know
5 that, Clarissa, you've had issues with that.

6 MS. EATON: Are you referring to
7 Westinghouse?

8 MR. RUTHERFORD: I believe it was
9 at Westinghouse who initially withheld the
10 information, and then ultimately they gave us
11 the information.

12 MS. EATON: Are you asking me?

13 MR. RUTHERFORD: No. I believe
14 that Westinghouse was the name of the company.
15 I believe, yes, you're right.

16 MS. EATON: Okay. And is everybody
17 aware Westinghouse is in a lot of trouble in
18 other states like South Carolina, for
19 falsifying documents? Is everybody aware of
20 that?

21 MEMBER KOTELCHUCK: Dave
22 Kotelchuck. I was not aware of that. I'm not

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1 surprised. But I was not aware of that. But
2 we cannot as a Board act on, without some
3 sense of charges in this case. And
4 falsification in this case.

5 MS. EATON: I understand that. But
6 also, they withheld that information. That
7 was another choice. Like it was a choice to
8 quit monitoring these workers.

9 MEMBER KOTELCHUCK: Yes.

10 MS. EATON: These are all corporate
11 decisions.

12 MEMBER KOTELCHUCK: True.

13 MS. EATON: Corporate decisions
14 which, you know, are really the ones who
15 should be in trouble for not doing what they
16 should have done.

17 MEMBER KOTELCHUCK: But according
18 to the reports that we did get the
19 Westinghouse information for this plant. Even
20 though they held it back. Is that not
21 correct? Did I not hear that.

22 MR. RUTHERFORD: No. That is

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1 correct.

2 MS. EATON: They did withhold it.

3 MEMBER KOTELCHUCK: They withheld
4 it, but then they released it, after I assume
5 some further requests and pressure.

6 MR. RUTHERFORD: Yes.

7 MEMBER KOTELCHUCK: Yes.

8 CHAIRMAN ANDERSON: Okay. I guess
9 I'll make the motion then that, as far as our
10 presentation -- or I'll ask for a vote from
11 the committee here that we accept NIOSH's
12 conclusion that they can do dose
13 reconstruction for the SEC proposed period.

14 And therefore, we would accept
15 their decision to deny the SEC. And then
16 we'll make a presentation to the Board. And
17 if we can have further information on kind of
18 a secondary issue of looking at the coworker
19 model, we can do that as well. But that would
20 be the motion I would make. And that --

21 MEMBER KOTELCHUCK: Okay.

22 MR. ALBA: Can I make a comment,

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1 please?

2 CHAIRMAN ANDERSON: Sure.

3 MR. ALBA: Before you do that, I
4 was reviewing my -- this is Ryan Alba. I was
5 reviewing my redacted interview. And there
6 was a mistake on it, I feel. It says other
7 exposure hazards.

8 It says, while the interviewee was
9 at the site where an incident involving a
10 spill of thorium at the pellet plant.
11 However, the interviewee was not involved in
12 the incident. We all -- That's not true.

13 The people from the item plant and
14 myself did go work in the pellet plant during
15 the thorium incidence, when they were using
16 thorium there, when we were down. So just to
17 make a blank statement that anybody that
18 worked in the item plant was not exposed to
19 the thorium was not true.

20 MEMBER KOTELCHUCK: Okay.

21 MR. ALBA: I didn't mean it that
22 way. If whoever took the notes put it that

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1 way, but that's not true.

2 MEMBER KOTELCHUCK: Okay.

3 MR. ALBA: So the operators and the
4 technicians who were in the item plant at the
5 time of the thorium experiment, basically is
6 what it was, when they made the thorium
7 pellets. We were involved off and on in the
8 pellet plant with that.

9 And I had said in my interview
10 where the operators were rotated in and out of
11 the item plant. Well they may go to the
12 pellet plant and work for a couple of weeks
13 while we were doing something else in the item
14 plant.

15 Then when we started production
16 back in the item plant, they came back to the
17 item plant. They were rotated in and out.
18 The technicians stayed in the item plant
19 except for when we had down time. And one of
20 those times we did go and assist them in the
21 pellet plant during the thorium operation.

22 MS. EATON: Okay.

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1 MR. ALBA: While I don't know if
2 that makes a difference as far as exposures or
3 what -- but anyway, I think you need that
4 information.

5 MEMBER KOTELCHUCK: Well that is
6 helpful. And that should -- it seems to me
7 that NIOSH shouldn't, and SC&A people have to
8 look at that, and see if that does not affect
9 it. But for the resolution itself that we go
10 ahead with the dose reconstruction --

11 MR. ALBA: I understand.

12 MEMBER KOTELCHUCK: That would not
13 affect that. It would affect the details of
14 the dose reconstruction --

15 MR. ALBA: Right, that's true. But
16 I didn't want that point to go --

17 MEMBER KOTELCHUCK: Absolutely.
18 And I think this needs to be put down by the
19 NIOSH folks to look into and reevaluate.

20 MR. ALBA: Okay.

21 MEMBER KOTELCHUCK: But in terms of
22 the resolution, Henry, I'm glad to second the

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1 resolution that you put forward. Dave
2 Kotelchuck.

3 CHAIRMAN ANDERSON: Thanks. So
4 Ted, you want to do a roll call vote?

5 MEMBER FIELD: Henry, this is Bill
6 Field. I just had a question for the
7 interviewee that was just talking. I know you
8 can't go into security issues, obviously.

9 But it was my impression that when
10 you first spoke, you had indicated that you
11 thought the information that was redacted may
12 provide additional insights as far as the, I
13 guess the validity of the appropriateness for
14 an SEC. Is that correct?

15 MR. ALBA: Yes. The redacted
16 information I felt was necessary to give you
17 the whole concept of what methods were used,
18 what chemicals were used and what the
19 conditions were in certain areas of the plant
20 during operations, and how that operation was
21 performed.

22 Therefore, you could make an

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1 intelligent decision to see was there a bigger
2 dust factor here? You know, and what areas
3 were unprotected by air sampling, for example
4 around the furnaces I noted. I felt that that
5 would give them a concept of the whole plant.
6 And with the chemicals and everything we used.

7 MEMBER FIELD: I see. I appreciate
8 that.

9 MR. ALBA: And it also had the
10 enrichment in various details --

11 MEMBER FIELD: I understand.

12 MR. ALBA: -- that of course they
13 redacted.

14 MEMBER FIELD: Right. LaVon, given
15 this information, you know, from your
16 perspective is there any information here that
17 may affect, you know, the decision from your
18 perspective?

19 MR. RUTHERFORD: Yes. From my
20 perspective -- And I know the information
21 that was there.

22 MEMBER FIELD: Right.

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1 MR. RUTHERFORD: And I am cleared.
2 And from my perspective it would not change.
3 It is the -- because of what the exact
4 concerns are, and we've got that covered. So
5 from my perspective it would not change.

6 MEMBER FIELD: Okay. That answers
7 my question. Thank you.

8 MS. EATON: I have another
9 question. Clarissa Eaton.

10 MR. KATZ: No, excuse me. Just as
11 a matter of course. We're in the middle of a
12 motion. And this is not the time and place --

13 MS. EATON: Oh, okay. I'm sorry.

14 MR. KATZ: -- for more public
15 comment at this point. But surely we can
16 complete the motion on the table. It's been
17 seconded. And then you just need, Bill Field,
18 you need to either register your position on
19 it. And that would complete the motion.

20 MEMBER FIELD: Yes. I'm in
21 agreement.

22 MEMBER FIELD: Okay. That means

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1 everyone's in agreement and the motion passes.

2 MR. KATZ: Okay. You can go ahead
3 now Clarissa if you want, you have something
4 else to say, by all means.

5 MS. EATON: Was the item plant the
6 hottest department at the whole site?

7 MR. RUTHERFORD: It was, from the
8 monitoring data it was one of the hottest
9 areas. The Red Room and the Green Room also
10 had very high levels.

11 MS. EATON: Ryan, are you in
12 agreement with that?

13 MR. RUTHERFORD: And I want to say,
14 at different times. Because there's data
15 that, you know, in other areas of the plant
16 you would have high exposure points too. It's
17 just at different times.

18 MS. EATON: Well my question is, of
19 the data that you have, is it during and at
20 the location of the hot spots? Or are we just
21 generally generalizing the data from a site
22 wide perspective? Or, you know, my question

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1 is, is how much of the data is in the most
2 dangerous departments?

3 MR. RUTHERFORD: Well I mean,
4 there's data for the Red Room, the Green Room.
5 There's data for Blue Room. There's data for
6 all over the plant.

7 MS. EATON: But the load bearing
8 data, what you feel is the weighted, the most
9 weighted data to arrive at this decision.

10 MR. RUTHERFORD: Yes. I understand
11 where you're coming from. And the weight
12 bearing data is the urine bioassay data. And
13 we have that for all over the plant. And it
14 still -- That doesn't, you know, I mean, that
15 would give us our answers.

16 MS. EATON: But were those workers
17 in --

18 MR. RUTHERFORD: Yes. We have
19 workers in the item plant, workers that worked
20 in the Red Room. We have workers from all
21 over the plant.

22 MS. EATON: Thank you.

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1 MS. PATTERSON: Excuse me. This is
2 Brenda Patterson. And I know this is at the
3 end of your conference and everything. But
4 can I bring something a little personal to
5 this? It has just taken me a little bit --

6 CHAIRMAN ANDERSON: Sure.

7 MS. PATTERSON: -- to be able to
8 speak. Four weeks ago, my husband died of
9 liver cancer. And he had also had bladder
10 cancer. Had his bladder removed, his prostate
11 removed.

12 And he lived with that sad
13 situation for like, seven years. And this
14 cancer of the liver was a primary cancer,
15 didn't have anything to do with the other one.

16 He worked at United Nuclear. He was a lab
17 technician. He worked with the high enriched
18 uranium.

19 And the bioassays, he didn't have
20 all the bioassays that they're saying was
21 there. And he had given you all the names of
22 two people who said they would speak up for

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1 him, who took care of that situation of
2 collecting the bioassays.

3 And they were never contacted to
4 speak to or anything. I will not give up on
5 this. Although he has been turned down twice.

6 And I want to tell you, you know,
7 people are hurting that I don't think should
8 have been turned down. And that's all I have
9 to say.

10 I appreciate, you know, the things
11 that you're going through and trying to do.
12 But United Nuclear did not have a lot of
13 safety measures, I know, as far as the lab was
14 concerned. So I just wanted to say that much.
15 thank you.

16 CHAIRMAN ANDERSON: Well thank you
17 for speaking up. We understand this is
18 difficult. And I also just want to remind all
19 of the claimants that while this is a Work
20 Group and we're moving this forward, this will
21 be presented to the full Board.

22 And you'll have another opportunity

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1 there to speak before there is a final vote on
2 this. And we'll go through the -- it's often,
3 for those of you who've struggled with going
4 through the minutes from our various Work
5 Group meetings over the time.

6 We will try to have a very succinct
7 presentation of what has transpired up until
8 this point, and what the issues are that --
9 We've had smaller issues they talked about,
10 like that two worker thing. That can be
11 confusing as it relates to the overall
12 database that's available.

13 We of course can't get into the
14 appropriateness of the actions of the actions
15 by the company. But having the measurements
16 really helps us understand what the actual
17 exposures were, and use that to do the dose
18 reconstructions.

19 And unfortunately the way the
20 program is set up, criteria for making an
21 award to a claimant is pretty proscribed. So
22 we understand, Brenda, your issue with having

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1 been turned down.

2 But our job is to see that the
3 process that was used is appropriate. And I
4 guess that if there's a doubt on exposures to
5 give our best estimate.

6 So I guess in conclusion, that I
7 don't know if someone can put together a set
8 of slides. I guess SC&A, as our contractor,
9 John or Hans, one of you put together a
10 summary for me to make presentations to the
11 Board would be very helpful.

12 MS. EATON: Can I ask one more
13 question?

14 CHAIRMAN ANDERSON: Okay. last
15 question.

16 MS. EATON: Thank you.

17 CHAIRMAN ANDERSON: Sure.

18 MS. EATON: Just for the record,
19 how long was it before Westinghouse decided to
20 turn over that information?

21 MR. RUTHERFORD: Clarissa, this is
22 LaVon. You know, I can't give you exact dates

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1 off hand. I mean, I can go back and look at
2 the record. But I can remember, since I was
3 working on this one early on.

4 It seemed like it was about a five
5 month, a four or five month period that we
6 requested the information, and had been told
7 that it would -- the information was not, they
8 couldn't give us the information because of a
9 lawsuit, if I remember correctly.

10 And then ultimately after our
11 General Counsel and their General Counsel
12 conversed back and forth, it was released to
13 us. And if I remember, it was released to us,
14 it was about five months.

15 MS. EATON: I was thinking it was a
16 couple of years.

17 MR. RUTHERFORD: Well honestly, you
18 know, Clarissa like I said, you know, I'm
19 going off the top of my head. And so I may
20 be, you know, I may be wrong. I know that
21 there was a --

22 Let's put it this way. That there

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1 was definitely a five month period after your
2 petition went in. And there was a period of
3 where there was more of a pressure to get the
4 information from them.

5 And so that may be where I'm
6 thinking of it. And it may have actually been
7 longer that we were requesting it. I'm not
8 totally for sure.

9 MS. EATON: Okay. Well whether it
10 be five months, two years, I can bake a cake
11 in that amount of time and tell you how I want
12 it to taste. It just makes us --

13 I don't even understand how that's
14 legal. This is a federally legislated
15 program. And I don't understand how any,
16 whether it be the litigation, or whatever they
17 got going on.

18 I don't see where they have the
19 power and authority to withhold any
20 information. There should be consequences for
21 that. I sent Larry Elliott a letter. I asked
22 him to respond in writing about that.

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1 MR. KATZ: Excuse me.

2 MS. EATON: Why is the guilty, the
3 potentially responsible parties --

4 MR. KATZ: Excuse me.

5 MS. EATON: -- why do they have
6 that kind of power to withhold any information
7 in a federally legislated program. I don't
8 understand that.

9 MR. KATZ: Okay. Excuse me,
10 Clarissa. I understand your angst about that.

11 But that's really not, this is not the venue
12 for that kind of dialogue or discussion.

13 I mean, you're welcome to inquire
14 about that legal matter with the folks at
15 NIOSH. But this really isn't for the Work
16 Group discussion. Thank you.

17 CHAIRMAN ANDERSON: Okay. With
18 that, that will close out our discussion on
19 United Nuclear. Let's move on to Baker-
20 Perkins. And that's a Site Profile review
21 closeout discussion. So where do we stand?

22 MR. KATZ: So right. So just to

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1 remind you, Andy, you were prepared actually
2 to have your close out presentation in June.
3 But we didn't do it in June at the Board
4 meeting. So September's coming up.

5 And really this is just an
6 opportunity for you to speak with SC&A, DCAS
7 or whatever. And get material together so
8 that you'd be ready to present. Because the
9 Work Group has done all the work of reviewing
10 that TBD.

11 CHAIRMAN ANDERSON: Right. And I
12 think we had the matrix and we came to
13 conclusion on all of the issues, except one,
14 or whoever is handling any part of Baker-
15 Perkins.

16 DR. MAURO: Yes. This is John
17 Mauro. Yes. I went through the transcript
18 from our February 14th meeting to confirm that
19 yes, we have -- there was a process on this
20 Baker-Perkins Site Profile.

21 And if you recall it was just I
22 believe it was a five day period where there

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1 were certain activities. And we had some
2 concerns about the original one.

3 And then there was responses to all
4 of our concerns, which were quite detailed.
5 So yes, we are in a position -- we can say now
6 that we concur with all of the answers to the
7 questions.

8 In other words, the questions we
9 had originally, that there was a response
10 provided. And we reviewed those responses.
11 And we concur that those responses --

12 The bottom line was, in the
13 responses there was an amazing amount of fine
14 detailed information regarding what took place
15 in those five day period, with lots of, a
16 level of granularity you don't often see. And
17 it resolved all our issues.

18 So yes, the answer to your
19 question, we could certainly also prepare
20 slides. So it sounds like you'd like us to
21 have slides for United Nuclear for you. And
22 also somehow summarize what transpired to get

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1 us to where we are on Baker-Perkins.

2 CHAIRMAN ANDERSON: Great.

3 DR. MAURO: Very good. We'll --

4 CHAIRMAN ANDERSON: Bill or Dave,
5 do you have any questions? It's a little
6 unfair, Dave, we're near the end on a couple
7 of these issues and you're just getting
8 started with them. But if you have questions
9 --

10 MEMBER KOTELCHUCK: No, I don't
11 have any questions. This came before I was on
12 the committee. So I wasn't part of that
13 discussion. But that's fine.

14 CHAIRMAN ANDERSON: Good. So I
15 don't think we need a motion on that. We're
16 just going to present our findings. Is that
17 correct?

18 MR. KATZ: That's correct, Andy.
19 You already had a motion to present --

20 CHAIRMAN ANDERSON: Oh, I thought
21 we'd already moved it forward, or we just ran
22 out of time.

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1 MR. KATZ: You did. You did. So
2 then John Stiver or John Mauro, just let's aim
3 for having these presentations to Andy if
4 possible by -- I would just say Wednesday,
5 close of business if possible, or Thursday
6 early. So that we have time. Because these
7 will then have to be PA-cleared and posted for
8 the public and so on.

9 DR. MAURO: Ted, yes. That gives
10 us a -- we'll work on that and get that to you
11 certainly by close of business day on
12 Wednesday.

13 MR. KATZ: Okay. That's great if
14 you can do that. Thank you.

15 CHAIRMAN ANDERSON: Okay, great.
16 So then our last issue is DuPont Deepwater.
17 And that's really just again, it's a Site
18 Profile, but it's early on in the process. I
19 think, John, you put together a matrix. Dave,
20 I don't know if anyone has talked to you, or
21 you --

22 MEMBER KOTELCHUCK: I have the --

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1 Can you hear me?

2 CHAIRMAN ANDERSON: Yes.

3 MEMBER KOTELCHUCK: I have the site
4 matrix and I've looked it over what is on
5 site, what is on the website. But nobody has
6 talked to me specifically during the
7 additional counseling on this. But I'll
8 follow along.

9 CHAIRMAN ANDERSON: Okay. Well
10 kind of the -- I guess, do we need to task
11 SC&A to fill out the matrix? I still remember
12 if we have a --

13 MR. KATZ: Andy?

14 CHAIRMAN ANDERSON: Do we have a
15 review paper from you, John?

16 DR. MAURO: Yes. Maybe I can help
17 out a little bit historically. Again, going
18 back to the transcript in February. At that
19 meeting we did present -- you do have our
20 report.

21 We have a Site Profile review that
22 was delivered on August, 2011. And then there

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1 was a matrix with the six or seven findings
2 submitted. That was before. But it was
3 around for a reason.

4 At the time we submitted the matrix
5 for the February meeting. And at the meeting,
6 you know, we pointed out, yes, we had a number
7 of findings. I think there were six or seven.

8 I actually have the report in front of me.
9 And I believe you have the actual matrix. We
10 re-sent it.

11 CHAIRMAN ANDERSON: Yes.

12 DR. MAURO: So you should have that
13 in front of you. So those are our findings.
14 And of course associated with each one of the
15 findings is a little story that's written up
16 in our report.

17 And at the last meeting, I believe
18 the way we left it was that NIOSH would try to
19 respond to each of these findings. And I
20 don't know to the extent to which they may
21 have had to look at those findings in our
22 report. And for today, where we could talk a

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1 little bit about them.

2 And I think that's where we are.
3 We're at the point where quite frankly the
4 ball is in NIOSH's court to address each of
5 these findings associated with that, you know,
6 our work.

7 CHAIRMAN ANDERSON: Okay. Now
8 we're up to speed. I've got three folders
9 full of materials here. And I focused most on
10 United Nuclear. So LaVon, where do we stand
11 on your responses?

12 MR. ALLEN: Henry, this is Dave
13 Allen.

14 CHAIRMAN ANDERSON: Dave. Okay,
15 it's Dave's lead then. Take it away.

16 MR. ALLEN: Tag teaming here today.
17 I'm ready to discuss these issues if you want
18 to do that. Some of this is a little
19 mathematical.

20 I didn't know if you wanted to
21 discuss this face to face or in a conference
22 call, or if you wanted an actual written write

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1 up. But I didn't want to just put it into the
2 matrix that came this week.

3 Because, you know, it's more than a
4 paragraph answer for many of these. So did
5 you want to just go through one by one and see
6 where we stand?

7 CHAIRMAN ANDERSON: Yes. I think
8 we've got some time. If we could do that it
9 would be helpful. I think it would also be
10 helpful to, you know, get it written down.

11 MR. ALLEN: Okay. How about we go
12 through one by one.

13 CHAIRMAN ANDERSON: Let's go
14 through and see are there -- I mean, if
15 you've resolved them all, SC&A can comment on
16 that on the phone. If not then let's use our
17 regular process of you kind of write it down,
18 and then SC&A can take a look at it.

19 And we may need to either have
20 another call or have a meeting to do face to
21 face if there's disagreements that we have to
22 spend more time focusing on.

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1 MR. ALLEN: Well that's kind of
2 what I was hoping. Because I thought it was
3 completely closed out.

4 CHAIRMAN ANDERSON: Well that's
5 what I -- Not knowing what you're going to
6 say, I was hoping we could get a bit closer to
7 that.

8 MR. ALLEN: Okay. Would you like
9 me to start then.

10 CHAIRMAN ANDERSON: Go ahead.

11 MR. ALLEN: Okay. Finding Number
12 1 from SC&A was -- it essentially said the
13 Site Profile should discuss the degree to
14 which the 1944, 1945 air data applies to 1942
15 and 1943.

16 And the first part of that is
17 essentially that 1942 was construction as far
18 as the radiological work goes. This site also
19 did some chemical work that started earlier.
20 But the plants for the radiological work were
21 constructed in '42 and '43.

22 And they started operating at

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1 different time periods throughout 1943. So
2 we're really looking at more like, you know, a
3 year here, 1943 where you don't have the data.
4 That essentially is a start up time frame for
5 this operation.

6 And I know there doesn't appear to
7 be any data for the actual start up. But
8 there doesn't appear to be any changes that
9 occurred either.

10 And typically a start up, at least
11 early stages of start up is a slow process.
12 And you don't get quite as much airborne as
13 when you get going good.

14 The exception to that is if the
15 mitigating factors you put into effect don't
16 work very well, and you have to change
17 something, like some different ventilation or
18 something to that effect.

19 But I think based on the data we've
20 seen, 1944 and 1945, they're relatively high
21 air samples. So it doesn't appear as though
22 there was any, certainly no effective

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1 mitigation that was put into effect, you know,
2 sometime between startup and '44.

3 CHAIRMAN ANDERSON: Okay.

4 MR. ALLEN: And I do agree with
5 SC&A, the --

6 MEMBER KOTELCHUCK: Dave
7 Kotelchuck. Just to ask a question about
8 that. What was the type of, what sort of
9 detection devices?

10 Were you using air sampling on some
11 sort of filter and then measuring the
12 radiation dose on that? I wondered what
13 people did back in '44 and 45 to measure
14 radiation exposure.

15 MR. ALLEN: I do believe that is
16 what they were using. But in all honesty I
17 couldn't tell you the exact. It was air
18 sample data, yes. And I could not tell you
19 off the top of my head the exact method they
20 were using at that point.

21 MEMBER KOTELCHUCK: I just
22 wondered. Because '44 and '45 were, I'm not

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1 sure what our level of technology was then.
2 It's changed so much since World War II that
3 I was just curious as to what kind of
4 radiation detection devices were used. And
5 obviously there's question, I mean, were they
6 very sensitive? Were they appropriately
7 sensitive?

8 MR. ALLEN: Well I know they were
9 definitely -- I don't know the type of
10 sampling that occurred. I'm pretty sure I can
11 find that. But off the top of my head I don't
12 know that. They were sent off site to
13 analyze.

14 DR. MAURO: This is John Mauro. I
15 can help a little bit. I have the report we
16 wrote up. And it usually has some
17 introductory material that sort of summarizes
18 the kind of data that was available.

19 And what these were, they were
20 pulling air particulate samples. And they
21 were measuring -- they weren't measuring
22 radioactivity, they were measuring micrograms

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1 per cubic meter.

2 MEMBER KOTELCHUCK: Aha.

3 DR. MAURO: Okay. So and they did
4 an analysis of the micrograms of uranium per
5 cubic meter. And then they convert that to
6 activity, dpm per cubic meter. I'm assuming
7 natural uranium.

8 MEMBER KOTELCHUCK: Okay.

9 DR. MAURO: Okay. So that's a
10 pretty straightforward process.

11 MEMBER KOTELCHUCK: It is.

12 DR. MAURO: I'm sorry, go ahead.

13 MEMBER KOTELCHUCK: No, no. It is.
14 That's right.

15 DR. MAURO: Yes, and that was, and
16 they were doing that. And there was a point
17 in time when they would do gross alpha counts.
18 But this might have been before that. But we
19 see this often, where they look at the mass.

20 MEMBER KOTELCHUCK: Right.

21 DR. MAURO: And then they have a
22 little more data. They actually had collected

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1 252 samples And they were actually in a hard
2 copy log sheets. And so they have these data.

3 And so these data, these air
4 samples were collected and we plotted them.
5 We plotted the data on a log to see if it
6 followed a nice log uniform, or log normal
7 distribution.

8 Because it's often nice when you
9 see that. Because that means you have the
10 sampling from a single population. And we
11 found that it did.

12 So what I'm getting at is, we think
13 that the air particulate uranium data
14 collected in that time period now. These 252
15 samples collected in the, was it the start of
16 '43 --

17 MEMBER KOTELCHUCK: '42, yes.

18 DR. MAURO: Those are good data.
19 In other words, you can do a lot with that.
20 And certainly to reconstruct it. And
21 certainly, if there's any uncertainty you
22 could always work off the upper 95th

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1 percentile.

2 MEMBER KOTELCHUCK: Well --

3 MR. ALLEN: So they -- Actually,
4 given that they were only using uranium and
5 uranium compounds --

6 MEMBER KOTELCHUCK: Yes.

7 DR. MAURO: It's reasonable to say
8 that the dust was entirely uranium. At worst,
9 it overestimates. Because if there was just
10 random dust in the air, you know, just non --
11 ordinary dust that happens anywhere, that
12 would be treated as uranium. And therefore,
13 would be -- it would, if you will,
14 overestimate the dose.

15 MEMBER KOTELCHUCK: Yes.

16 DR. MAURO: So that's a good --
17 That's perfectly sound procedure.

18 MEMBER KOTELCHUCK: Yes.

19 DR. MAURO: Yes. That's where we
20 came down. And of course we were left with
21 the concern that okay, we don't seem to have
22 any data from '42, '43. And the arguments

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1 intuitively that were made, well really there
2 was nothing going on of any substance.

3 And in theory that would be the
4 answer. Because, you know, if you could make
5 a case that there was not very much production
6 going on and agree to it, that case could be
7 made.

8 It probably would be very helpful
9 for this to be written up by, as a White
10 Paper, as NIOSH often does, explaining it.
11 But I think in principle if a case can be made
12 by NIOSH that, yes during those earlier years
13 this is what was going on.

14 And there's good reason to believe
15 that the levels, the dust loading of uranium
16 would have been much lower at that time than
17 during the full blown operations. But that
18 would certainly be a pretty good answer for
19 our first question.

20 MEMBER KOTELCHUCK: Yes.

21 MR. ALLEN: Okay. This is Dave
22 Allen again. And essentially that was my

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1 proposal from this Item 1 was I wanted to
2 bounce the idea off you of essentially
3 describing why it is still good for '42 and
4 '43.

5 And then as long as there was not
6 major objection then I would go ahead and
7 write that up as a White Paper. And with the
8 idea that eventually that would get
9 incorporated into the TBD. Because we do
10 agree with SC&A that the TBD would benefit
11 from a discussion on that.

12 CHAIRMAN ANDERSON: Okay.

13 MR. ALLEN: Good. Moving on to
14 Issue Number 2. Issue Number 2 is essentially
15 discussing the ingestion. The write up itself
16 is mentioning, from SC&A, mentions the Site
17 Profile. Or it's a request the Site Profile
18 discuss the level of surface contamination at
19 the facility.

20 And as the second point of that
21 issue was, it should describe the ingestion
22 intake, because they were, SC&A was getting a

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1 different number than what was in the Site
2 Profile.

3 The second part of that is the easy
4 part. The Site Profile, although the way SC&A
5 calculated the dose is via our Technical
6 Information Bulletin Number 9. And it
7 produces a dpm ingestion rate for, you know,
8 each day of work.

9 But what we put in the Site Profile
10 is we pro-rate that to a calendar date basis,
11 because that is the way IMBA and any internal
12 dosimetry software will calculate the dose is
13 assuming continuous exposure.

14 So it's a seven day per week type
15 of exposure. If you take the value that SC&A
16 has in their write up and simply multiply it
17 by five-sevenths, you will get the value
18 that's in the TBD.

19 DR. MAURO: Got it. Okay. Thank
20 you. That's half the question.

21 MR. ALLEN: Yes. So that's, I mean
22 that's half of the --

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1 DR. MAURO: That's the easy part.

2 MR. ALLEN: The other part is, I'm
3 not totally clear on what you wanted there.
4 But it was mentioning the .5 milligram per
5 day.

6 DR. MAURO: Yes.

7 MR. ALLEN: And what I did was, if
8 you -- in reality, if you take that .5
9 milligram per day ingestion, which is a EPA
10 screening level I believe. It's what you'd
11 call it John. I'm sure of the right
12 terminology there.

13 CHAIRMAN ANDERSON: That's from
14 their exposure factors handbook, isn't it?

15 DR. MAURO: That's the point, it's
16 not. It's too low.

17 CHAIRMAN ANDERSON: Is it? Oh,
18 okay. I thought maybe it was.

19 DR. MAURO: I can help out a little
20 bit here. There's a lot of history to this.
21 And I think we've converged on an approach
22 during a number of Work Group meetings on the

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1 ingestion pathway.

2 First let me say the ingestion
3 pathway is always a very, very small
4 contributor to the intake. Nevertheless, you
5 know, our mandate is to point out places where
6 we feel there may be some issues.

7 So it does not have a substantial
8 effect on the ability to, on what the outcome
9 would be of a dose reconstruction. Because
10 the ingestion pathway is a relatively small
11 contributor to the dose.

12 But nevertheless, the issue goes
13 like this. The approach that NIOSH has
14 adopted generically in this OTIB-009 in effect
15 embedded in this approach is effectively an
16 assumption regarding how much dust and soot
17 and junk people might ingest per day.

18 In other words, you know, hand to
19 mouth activities. And if you go into NCRP
20 recommendations, you go into EPA
21 recommendations for the purpose of Superfund,
22 and go into the records of where these numbers

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1 where these recommendations come from, you see
2 that the number of milligrams per day that
3 people ingest from various walks of life and
4 different types of activities, whether it's an
5 industrial setting or it's a gardener in their
6 backyard.

7 The numbers are on the order of 50
8 to 100 milligrams per day, just in inadvertent
9 ingestion. So that's sort of the recommended
10 default approach in the literature. So our
11 first reaction when we first saw OTIB-009 was,
12 gee, effectively --

13 And it's not apparent, but if you
14 go in and try to tease out how did they come
15 up with their protocol? We back calculated
16 out. Effectively the approach you're using
17 implies that the ingestion rate, this
18 inadvertent ingestion rate is .5 milligrams
19 per day.

20 And that seems to be a very small
21 number. And we had quite a bit of discussion
22 on that. And there's a record, a transcript

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1 record on all this. And where we came out is
2 as follows.

3 If you're working in an environment
4 where -- Let's say you're working with
5 uranium. And there's a lot of uranium being
6 generated as flakes, dust, that's settling on
7 surfaces where you actually could see it, you
8 know, it's a pretty messy operation.

9 And these kinds of operations did
10 occur in the early years of the Atomic Weapons
11 Employee programs, where you had stuff that
12 was predominantly uranium.

13 Under those circumstances you would
14 expect that the recommended ingestion rate
15 that's being used by NCRP and the EPA would
16 hold. Namely, numbers on the order of maybe
17 50 milligrams a day.

18 But the argument that NIOSH would
19 make, but wait a minute, we don't really have
20 that situation. That is, you know, perhaps
21 when the situation's like that, yes, we would
22 agree. It would be a higher ingestion rate.

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1 But most of the time what we're
2 dealing with is that most of the soot and the
3 junk that's on the ground is just dirt. And a
4 very, very small portion of that material is
5 the uranium.

6 So using these milligram per day
7 number, which is not a radioactive thing. It
8 was just -- in other words, the way they were
9 looking at it --

10 Listen, how much dust and soot and
11 soil, and whatever does the people ingest?
12 And that was the real question. And that's
13 where the 50 and 100 milligrams per day comes
14 from.

15 But now we're asking a different
16 question. And I agree with NIOSH on this.
17 The question's well wait a minute. If you're
18 in a dusty, dirty industrial environment, but
19 most of the dirt and dust, it's just soot and
20 dust, not uranium. You know, we think that
21 number's a bad number. And SC&A agrees with
22 that philosophy.

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1 But at the same time if you're
2 working in an industrial setting with uranium,
3 where the dust that's on surface has not been
4 cleaned up, and is predominantly uranium
5 flakes --

6 And as I understand it from looking
7 at the literature, these circumstances
8 actually existed in the early years, where you
9 could actually see the dust on the floor of
10 uranium oxide.

11 Under those circumstances, the
12 numbers that what you would be ingesting
13 inadvertently would be the uranium dust. So
14 our position is, we're okay with the effective
15 .5 milligram per day number that's embedded in
16 this OTIB-009.

17 If you're working in an environment
18 where the inadvertent -- that's first of all
19 is clean. Because they keep the place pretty
20 clean and there really isn't very much that
21 you would ingest by way of surface uranium.
22 Or you're in an environment where, listen, any

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1 soot that's there --

2 For example, very often you'd be in
3 an environment that would be a metal, a
4 smelting operation, where most of the time any
5 of the soot there is associated with a metal
6 working, steel working operation. And maybe
7 once a week they would do a little bit of
8 uranium work.

9 So the vast majority of what would
10 be on the surface would not be uranium. But
11 in those circumstances when whatever is --
12 it's a dusty environment and the dust is
13 uranium, we think the .5 milligram per day is
14 not a good number.

15 I think Jim Neton agreed with that
16 philosophy. It goes back to the transcript.
17 I hate to put words in your mouths at NIOSH.
18 So we're at a place where we, I believe the
19 philosophy is, when you're coming up with your
20 ingestion model for workers, your first
21 question that you have to ask yourself is, is
22 it reasonable to assume that most of the --

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1 First of all, it's a dirty
2 environment, lots of residual uranium oxide
3 from the operations are on surfaces. And it
4 hasn't been cleaned up. It's a pretty messy
5 place. Then the .5 milligram per day embedded
6 in this OTIB-009 probably is not a good
7 number.

8 But you could argue that no, no,
9 no, it wasn't like that. Then the .5 is good.

10 Sorry, it's a long story because this goes
11 back several years of discussion. But my
12 question then here is, in this particular
13 setting was consideration given as to what was
14 the setting?

15 Was the residual activity, the
16 kinds of activity that took place at Deepwater
17 a fairly dirty operation where if there was,
18 you know, that inadvertent ingestion would
19 have been uranium. That's what was on
20 surfaces. If that's the case then the .5
21 milligram per day would be a problem.

22 MR. ALLEN: This is Dave Allen. As

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1 John said, this has been something that we've
2 hashed over, over and over and over again.
3 And I don't think we've ever really come to
4 any kind of agreement.

5 I mean, NIOSH's primary position is
6 that, you know, one or two generic numbers is
7 really not very good at all. And I believe
8 the ingestion should be proportional to the
9 workplace conditions for a particular site.

10 And a very dusty site will have
11 higher ingestion than a very clean site. Not
12 just two different numbers, a .5 versus a 50,
13 but, you know, proportional to it.

14 We developed TIB-9 that we do scale
15 that with. And it is based on airborne.
16 Because we do believe that anything loose
17 enough on the ground, or on horizontal
18 surfaces that could be ingested, can also be
19 re-suspended into the air.

20 And therefore, there is a
21 connection between airborne and surface
22 contamination. What has been done in the past

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1 on a number of TBD reviews from various
2 different sites is that --

3 If I'm not mistaken the Procedures
4 Work Group is looking at TIB-9 and reviewing
5 that. And we've generally in the past
6 transferred this issue to the Procedures Work
7 Group to pile it on to that one issue, that
8 one TIB review. And if that's the case,
9 that's what I would like to recommend for this
10 particular TBD review also.

11 CHAIRMAN ANDERSON: So this would
12 be a referral.

13 DR. MAURO: Yes. I would say that
14 by and large we're in agreement that there are
15 circumstances where these classic OTIB-009
16 approach serves you well. And there are times
17 when it doesn't.

18 And it is something that is before
19 the Procedures Subcommittee under Wanda. I
20 believe that we converge, at least in
21 principle, on a solution. And I don't know if
22 it's actually been formally adopted yet by way

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1 of, let's say ultimately revising OTIB-009.

2 Because that is usually the end of
3 the process. That is, once you resolve an
4 issue, your revision to a procedure. But yes.

5 I think as applied to this case --

6 I know we're spending a lot of time
7 on this unfortunately. Maybe that's the
8 answer is, let's just leave this and transfer
9 it over to the Procedures Subcommittee.

10 CHAIRMAN ANDERSON: We can sure do
11 that. I mean, my only concern is we just, we
12 probably then need to keep this profile open.

13 Or I'm just worried that, you know, when we
14 transfer things like this it then gets lost in
15 the process in this Site Profile stage. And
16 we forget to go back if, in fact, the
17 Procedures Committee changes it.

18 MR. ALLEN: Well we, Henry, the way
19 we try to capture that, you know, because that
20 is a concern. The way I would envision this
21 going is, if the Procedures Subcommittee comes
22 up with some recommendations that we agree to,

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1 and we end up revising TIB-9, based on those
2 recommendations, then our Program Evaluation
3 Report process then goes back and sees what
4 the effect of that would be.

5 And essentially the effect would be
6 to have to go back and revise any number of
7 Technical Basis Documents that were based on
8 TIB-9. And then at that point those TBDs
9 would be PERs essentially. And we'd be
10 reviewing the effect of previously completed
11 claims on new methodology. So I think --

12 CHAIRMAN ANDERSON: Okay I just
13 don't want to gloss, that's all.

14 MR. ALLEN: I think --

15 CHAIRMAN ANDERSON: I mean, the
16 temptation is to transfer things, so we don't
17 have to do it.

18 MR. KATZ: This is Ted, Andy, this
19 is Ted.

20 CHAIRMAN ANDERSON: Yes.

21 MR. KATZ: So I agree with the
22 concern. I also agree with what Dave's

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1 saying, and what John has said about
2 Procedures dealing with this. I think the
3 course to pass forward is, I will make sure --

4 I don't think you literally need to
5 transfer this to Procedures. I will make sure
6 that this piece of the transcript goes to
7 Procedures. We have a Procedures meeting
8 scheduled for I believe sometime in November,
9 early November.

10 And let's make sure then John also
11 works with Procedures. We'll make sure that
12 this little piece gets addressed in the
13 context of what Procedures is doing with TIB-
14 9.

15 Because I don't recall at the
16 moment what the status is, whether everything
17 was resolved, or whether they're still some
18 matters out for them, what have you.

19 But I'll make sure that they follow
20 up on that. You can just leave this open as a
21 in progress issue for this TBD review, with
22 this Work Group.

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1 And we'll, anyway, we'll close the
2 loop with Procedures. And make certain that
3 at whatever point Procedures has concluded its
4 business -- perhaps they have already. I
5 don't know. They'll report back to this Work
6 Group so that you have that information to
7 consider.

8 CHAIRMAN ANDERSON: Okay. That's
9 good. I mean, kind of our charge is, is this
10 appropriate for this specific site. Where the
11 old TIB is really, TIB-9 is a more generic
12 procedure. And whether those apply in this
13 site or not is really kind of our --

14 MR. KATZ: Yes.

15 CHAIRMAN ANDERSON: -- our
16 subsequent issue to deal with. So that sounds
17 good. So let's move on to Finding Number 3,
18 unless Dave or Bill has questions.

19 MEMBER FIELD: Yes. Let's go on.

20 CHAIRMAN ANDERSON: Okay, Number 3.

21 MR. ALLEN: Okay. This is Dave
22 Allen again. Number 3 deals with an issue

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1 that we were dealing with in the TBD-6000 Work
2 Group. It became known as the Puzier effect.

3 And essentially the effect is that
4 when you re-melt uranium metal some of the
5 impurities, including some of the decay
6 products, can essentially flip to the top like
7 a slag and end up concentrating these decay
8 products near the top.

9 And that can cause an increase in
10 beta radiation for a few months until that
11 decays away because those tend to be short-
12 lived daughters. In this particular case we
13 looked into it pretty closely for TBD-6000.
14 And there is a write up in TBD-6000 discussing
15 it.

16 And what we found during the
17 research was that it's, you know, a real
18 effect during the re-melting process. But
19 there doesn't really appear to be any
20 information that it actually occurs during the
21 reduction process.

22 The difference there is that in the

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1 reduction, just a quick background. The
2 reduction process is essentially mixing
3 magnesium metal with uranium tetrafluoride,
4 and then heating that up.

5 And you get a process where you get
6 the molten -- The magnesium essentially
7 collects the fluorine and you end up with
8 molten uranium metal settling at the bottom.
9 For most places after that, that uranium metal
10 derby, as they call it, is then re-melted and
11 poured.

12 The molten uranium is poured into a
13 graphite mold. Not only to change the shape,
14 but also to purify it essentially. And to
15 bring this slag to the top that has been cut
16 off.

17 At DuPont they did do the reduction
18 process with the magnesium fluoride, with the
19 magnesium and the uranium tetrafluoride. But
20 they did not do the re-melting.

21 That was done elsewhere. I'm not
22 even sure where these were sent. I think they

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1 were sent to Mallinckrodt, but I'm not sure
2 about that.

3 So our response on this one is,
4 this is discussed on Page 22 of TBD-6000. And
5 the conclusion there was that this effect
6 doesn't appear to occur during the reduction
7 process, which is the only one of those two
8 processes that occurred at DuPont.

9 So we think it's a non issue here.

10 And I can of course, you know, put a response
11 down on the matrix there. But I wanted to
12 bring that out verbally.

13 CHAIRMAN ANDERSON: Thank you.

14 DR. THURBER: This is Bill Thurber.

15 David, I agree with that. And in fact there
16 is a patent out there, where in the re-melting
17 process, if you will, the inventors concluded
18 that you could eliminate the Puzier effect if
19 you did use a magnesium fluoride slag.

20 So that definitely supports this
21 whole concept that it is probably not an issue
22 during the reduction of the uranium

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1 tetrafluoride to the uranium metal. But it is
2 associated with the re-melting. So I concur
3 with that.

4 MR. ALLEN: Okay.

5 CHAIRMAN ANDERSON: So it sounds
6 like we're in agreement, and you just need a
7 written explanation.

8 MR. ALLEN: Yes. My thought was I
9 would put down like the short, one paragraph
10 reply --

11 CHAIRMAN ANDERSON: No, that --

12 MR. ALLEN: -- on the matrix. And
13 anything that needs a further explanation --
14 This one won't. But others that need a larger
15 explanation I would end up writing a White
16 Paper and sending it to the Work Group.

17 CHAIRMAN ANDERSON: Yes. This
18 doesn't need that much.

19 MR. ALLEN: No. This one I think
20 is just going to basically refer to Page 22.

21 CHAIRMAN ANDERSON: Yes. That's
22 fine.

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1 DR. MAURO: One of the important
2 points though is that you're saying your
3 records of the operations here was that there
4 was the original reduction process.

5 But they didn't actually make
6 ingots and go through the second step. And I
7 guess it wasn't apparent to me that that was
8 the case.

9 MR. ALLEN: Okay. Well that will
10 be our answer on that. And it's pretty clear.

11 There's a whole history of DuPont and this
12 particular site in our Site Research Database.

13 And it goes as far as to project
14 numbers, the date that the DuPont Executive
15 Committee approved, you know, beginning this
16 contract. And, you know what the contract was
17 for, what building was built to do it, and
18 that sort of thing. So it's pretty detailed.

19 DR. MAURO: Good, good. That's a
20 strong case.

21 MR. ALLEN: Okay. I guess moving
22 on to Issue 4, correct?

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1 CHAIRMAN ANDERSON: Yes.

2 MR. ALLEN: Issue 4 was a
3 substantial disparity between the explanation
4 on how the annual photon doses to operators
5 were derived, and the actual values employed
6 in the site matrix.

7 This particular issue -- It's
8 mentioned in the matrix. It's, you know,
9 there's a lot -- I'm sorry, it's mentioned in
10 the TBD. But there's a lot of stuff in the
11 TBD.

12 That the values, the starting point
13 that we used as far as radiation dose rate
14 values were considered to be an average type
15 of value. And we wanted to apply some sort of
16 uncertainty, or really needed to apply some
17 sort of uncertainty to that.

18 From our Battelle TIB-5000, lacking
19 enough data to do an analysis, you know, we
20 have some basis in there for a generic
21 assumption of a log normal distribution with a
22 GSD of 5.

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1 In order to apply an average value
2 to a log normal distribution you need to
3 calculate the geometric mean. So there is
4 formulas in TIB-5000 that --

5 And it's just flat mathematical,
6 statistical formulas that allows you to take,
7 determine what a geometric mean is from a
8 distribution that has a average value of X and
9 a GSD of Y.

10 And that's what we did. And that
11 is actually what the difference is, the
12 disparity that's discussed in the issue. The
13 table is not the average. But it is the
14 geometric mean. And there is a GSD of 5
15 applied to the values in that table.

16 DR. MAURO: This is John. I
17 understand that sometimes you go into some
18 statistical treatment. So that when I read
19 the Site Profile it seemed to be pretty
20 straightforward.

21 In effect a statement was made
22 that, well we believe that at different

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1 distances the dose, the exposure rates, were
2 either 1.3 millirem per hour or .3 millirem
3 per hour. And these were the exposure rates
4 that -- and really is milliroentgens.

5 And then you simply said, well
6 we're going to assume that people worked
7 there, worked 2400 hours per year. And half
8 the time they were exposed to 1.3 mR per hour,
9 and the other half was .3 mR per hour.

10 And I said, oh okay. So I, you
11 know, just did a little calculation. And I
12 came up with, well that means that the
13 exposures these people would get would be, the
14 field, 1920 milliroentgens per hour. But in
15 your report it's 519.

16 And it sounds to me that -- So
17 there's more to the story than my
18 understanding of what's in the Site Profile,
19 on how you got the 519. In effect, the issue
20 is we get 1920 mR per year, you get 519 mR per
21 year.

22 And it's not apparent to us, you

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1 know, and I'm hearing that you're saying that
2 it has something to do with the statistical
3 treatment of the data. But I don't think that
4 was in the write up of the Site Profile.

5 MR. ALLEN: It's in there, John.
6 But it's really not, I mean, it's not
7 highlighted or anything. It is the paragraph
8 before Table 7.

9 DR. MAURO: Okay. But --

10 MR. ALLEN: Table 7 --

11 DR. MAURO: -- the system that, by
12 the way that you would, I mean, it's not
13 that's it's a small difference. We're talking
14 about a fourfold difference. And I've got to
15 say, the statistical aspects of it, it's
16 always --

17 To be honest, I get thrown into a
18 tailspin I feel when you start to apply all of
19 these, I guess it's OTIB-5000, or TBD-5000,
20 whatever it is, 5000. Where you have a
21 statistical treatment of data.

22 But in this case it looked like you

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1 weren't working with data. You actually said,
2 listen, this is the radiation field. One foot
3 away is the radiation field. One meter away
4 from these, where the workers were working.
5 And it was very, very straightforward.

6 So yes, I could certainly use a
7 little help in understanding how you got, you
8 know, a factor of fourfold lower. I'd love to
9 understand that.

10 MR. ALLEN: Okay. And it's in
11 there. And I will put that in the, you know,
12 I'll do what I can as far as putting something
13 in the matrix that might require a little bit
14 more, a very short White Paper.

15 DR. MAURO: Yes. Walk me through
16 it. I mean, I got to tell you, I mean, I
17 believe there are ways that you might work the
18 data that is a statistically valid approach to
19 get to a geometric mean.

20 But in this case I thought it was
21 not actual measured data with distribution.
22 This is simply a physics problem. This is the

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1 exposure rate at one foot and the exposure
2 rate at one meter from a drum. And given that
3 exposure rate, that's that.

4 And we're going to assume that
5 there's a guy spends 50 percent of his time at
6 one foot away, and 50 percent of his time at
7 one meter away. And it's pretty simple. So
8 yes, I'm more than open to take a look at your
9 write up. I'd like to see it.

10 MR. ALLEN: Okay, I mean, you are
11 right. It is a calculated value. But that's
12 assuming you have a stick figure, you know,
13 exactly half his time here, and exactly half
14 his time at the other place.

15 DR. MAURO: Yes.

16 MR. ALLEN: And there's, you know,
17 going to be some uncertainty to that value.
18 And based on measured values at various sites,
19 and what we're seeing, you know, the geometric
20 standard deviation of 5 encompasses the worker
21 location type of uncertainty that we've seen.
22 And that's why we applied that. Because we

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1 know we don't have stick figures standing
2 there next to a drum.

3 DR. MAURO: It is my --

4 DR. THURBER: Go ahead, John.

5 DR. MAURO: I'm sorry, Bill. No,
6 go ahead, Bill.

7 DR. THURBER: What I was going to
8 say, Dave, it is, you know, to follow up on
9 John's point. Yes, if this is a standard
10 physics model calculation, which I suspect it
11 is, there is some uncertainty in that
12 calculation.

13 But that's not the kind of
14 uncertainty where it's appropriate to apply a
15 GSD of 5, which is a default position in
16 Battelle 5000, which says you can use that if
17 you don't know anything. And obviously I'm
18 sure that these physics calculations have an
19 established uncertainty.

20 DR. MAURO: One more -- and to
21 follow up on that. In so many occasions when
22 we are looking at an AWE site, where you're

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1 dealing with a barrel of yellowcake, or you're
2 dealing with a rod, or a slug. And you --

3 And in fact, it's right there on
4 the front end of TBD-6000. It says, well
5 listen, the radiation field at contact is 22
6 mR per hour. That would be the beta-gamma if
7 you were contacting it from the, you know --

8 And at one foot away it's about 2
9 mR per hour. And then you usually go with
10 that. And then you say okay, well how many
11 hours per year are they -- and so I don't --

12 When it was reduced to these types
13 of simple physics calculations, which we were
14 very comfortable with. I mean, there's
15 nothing, it's hard to, you know, there's
16 nothing to argue about.

17 This is the physics of the problem.

18 But then to go to this geometric mean and
19 standard deviation factor of 5, it just seems
20 to be incongruous with that. So, yes.

21 MR. ALLEN: Okay, John, I mean,
22 this is something we probably aren't going to

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1 gain anymore today on.

2 DR. MAURO: Yes, yes.

3 MR. ALLEN: I think it's something
4 reasonable people can disagree. The reason we
5 tried to apply the uncertainty was more for
6 the assumptions rather than the calculated
7 dose rates. Because this uncertainty ends up
8 producing a higher PoC than what just using
9 that average is going to do.

10 DR. MAURO: Well there's a big
11 difference. And this is important. In other
12 words, this issue is going to have a
13 significant impact --

14 MR. ALLEN: That factor of four --

15 DR. MAURO: -- on the dosage
16 instructions.

17 MR. ALLEN: -- average used as a
18 constant in IREP is going to give you a lower
19 Probability of Causation than what we did.
20 We're applying a distribution is what I'm
21 saying.

22 DR. MAURO: Yes.

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1 MR. ALLEN: But it's a -- I don't
2 know how significant it is. And I don't think
3 it's something we're going to settle here
4 today.

5 DR. MAURO: Okay.

6 MR. ALLEN: And I owe a write up as
7 far as what the mathematics, et cetera, are,
8 and our reasons for using that. And then I
9 think we can make more progress the next time
10 around.

11 DR. MAURO: Yes.

12 MR. ALLEN: Okay?

13 DR. MAURO: Okay.

14 MR. ALLEN: So moving on to Number
15 5, find where I'm at here in my notes. And
16 this ends up being, if I'm not mistaken, this
17 is kind of the same thing.

18 DR. MAURO: I think so, yes.

19 MR. ALLEN: Because it is another
20 issue of the geometric mean versus, you know,
21 what we consider to be an average. And I
22 think I'll include all this in a White Paper

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1 type of write up for the Work Group. And
2 there's probably no reason to really discuss
3 it thoroughly right now.

4 DR. MAURO: For the Work Group, it
5 said the former question had to do with photon
6 exposures. And the one we're talking about
7 now has to do beta exposures. So it's, you
8 know, the issue is the same.

9 In other words, in one case we're
10 doing a very simple physics calculation as
11 opposed to somehow some kind of statistical
12 treatment. So yes, I think the answer is that
13 both those are sort of going to be the same
14 type.

15 MR. ALLEN: Okay. And then just
16 moving on to Issue 6 here, unless somebody
17 stops me.

18 CHAIRMAN ANDERSON: We're on a
19 roll. That's what I was hoping, that we'd --

20 MR. ALLEN: Yes. Two more to go
21 here. And Number 6 is an assumption. And I'm
22 trying to remember what this is, John. This

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1 is the -- we made an assumption --

2 DR. MAURO: Yes.

3 MR. ALLEN: -- for the residual
4 period, if I'm not mistaken.

5 DR. MAURO: Yes, we're in the
6 residual period now, yes.

7 MR. ALLEN: We made an assumption
8 that the -- we had open window measured dose
9 rates that were, that would include both beta
10 and gamma radiation. We made an assumption of
11 a 50/50 split between beta and gamma to total
12 to that total radiation dose that was
13 measured.

14 And John's review, or SC&A's review
15 indicated that that doesn't seem very
16 realistic. It should be a bigger number, you
17 know, much more beta than gamma. And they
18 point to a table in TBD-6000 to point that
19 out.

20 Again, this will be a, I need to
21 give you a written response on this. But
22 essentially it came down to, they did some

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1 significant attempts at decontaminating these
2 buildings. And it included sandblasting the
3 floor.

4 They actually took, you know,
5 several hundreds if not tenths of inches off
6 the concrete floor. And these measurements
7 are, you know, essentially what was left
8 there.

9 Because of the cleaning, and
10 because it was clearly, you know, embedded,
11 I'm not sure if the ratio, the beta to gamma
12 ratio that was calculated for surface
13 contamination really applies as well.

14 Because there should be, it's very
15 credible there's a great deal of self
16 shielding of the beta radiation. Beta doesn't
17 have, you know, near the range that the gamma
18 radiation does.

19 And if it's embedded in concrete,
20 much of that beta radiation could be missing
21 from that total measurement. Therefore, it is
22 possible that the gamma is a bigger component

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1 than what would be calculated from just
2 surface with no self shielding.

3 And also, as a result, it's very
4 possible we would be underestimating the dose
5 to most organs. We could be -- the way we did
6 it could underestimate skin dose.

7 But in reality not really. Because
8 the skin is going to get all that dose. It's
9 going to get the beta dose and the gamma dose.

10 And we're going to use both in the
11 calculations.

12 My concern was more the photon dose
13 for all the other organs. If we assumed this
14 bigger ratio we'd be grossly underestimating
15 that dose.

16 And I don't know if there's enough
17 to say that it's, you know, definitely higher
18 beta than gamma. It probably is, but not to
19 the extent in TBD-6000.

20 That was the working assumption
21 when the TBD was written. And again, I can
22 put all this in writing. But at least get,

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1 you know, some type of feedback if anybody has
2 a thought on that.

3 DR. MAURO: Let me just help out a
4 bit. When I, you know, we've seen these
5 calculations before for AWE sites. Within the
6 residual period someone has made some
7 measurements, whether it's a contact dose,
8 open window where you get beta-gamma.

9 Or someone has made a dose exposure
10 rate measurement at one meter or one foot.
11 And you have some data on what the field is.
12 And then you make certain assumptions on what
13 portion, especially if it's open window, what
14 portion of it is penetrating, what portion is
15 not penetrating.

16 And this is all very standard
17 stuff. And we've seen it before, and we've
18 always been fine with it. In this case, I
19 have to say -- there's a couple of pages of
20 text that I wrote up here.

21 I got to tell you, it threw me for
22 a loop. I said, I don't get it, I got to tell

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1 you. And because it seems to be a simple
2 problem that could easily be calculated. But
3 you ended up coming up with numbers and an
4 approach with the whole body dose.

5 And using these numbers in a way
6 that actually was somewhat convoluted. I just
7 didn't really understand the rationale behind
8 it.

9 And again, I'll be the first to
10 say, maybe there's a really good rationale.
11 But I didn't get it. And anything you could
12 do to help me understand it, that would be
13 great.

14 MR. ALLEN: Okay. And I think you
15 are actually not only talking about 6, but
16 actually getting into Number 7.

17 DR. MAURO: Six and 7 are coupled,
18 yes.

19 MR. ALLEN: Seven as well.

20 DR. MAURO: Yes, they're coupled,
21 yes.

22 MR. ALLEN: And I have it written

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1 down that I owe you an explanation as to how
2 it was done, exactly. I'll put the equations
3 in there as far as how it was done, and a why.

4 As well as why I feel that is a better method
5 than what you proposed in your review.

6 DR. MAURO: Okay.

7 MR. ALLEN: I think that's what the
8 Work Group needs to, you know, make some type
9 of decision. And maybe we'll even come to
10 agreement before, you know, they have to make
11 a decision. Does that sound like the
12 appropriate path forward?

13 CHAIRMAN ANDERSON: Sounds good to
14 me. Are you including 7 in that? Or do we
15 want to talk 7 as well?

16 MR. ALLEN: I was just including 7
17 in that. Because that's almost what John --

18 CHAIRMAN ANDERSON: No. I think
19 they seem --

20 DR. MAURO: Yes.

21 CHAIRMAN ANDERSON: -- very
22 similar.

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1 DR. MAURO: Yes, I agree. Yes. I
2 think they're really coupled up issues. And
3 you could address them in one fell swoop.

4 CHAIRMAN ANDERSON: Okay. Other
5 Board Members, any questions? It seems to me
6 we got a way forward here. We've got a couple
7 of White Papers.

8 MEMBER FIELD: Right.

9 CHAIRMAN ANDERSON: We're finding 1
10 and finding 4 and 5 together. And then, I
11 don't know if it's a White Paper or not, but
12 at least a written explanation combining kind
13 of 6 and 7 issues as one.

14 MEMBER FIELD: Right.

15 MR. ALLEN: If I even have a -- It
16 might be 4, 5, 6, and 7 all in one shot.

17 MEMBER FIELD: Okay.

18 CHAIRMAN ANDERSON: However you
19 want to deal with that, it's fine. I just,
20 you know, 3, I think --

21 MR. ALLEN: Three, I'm going to
22 give you the NIOSH response on the matrix.

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1 and I think 3 can just be answered right
2 there.

3 CHAIRMAN ANDERSON: Right. And
4 then 2 we're going to talk about, you know,
5 referral. Or hopefully the Procedures
6 Committee will address that for us.

7 DR. MAURO: I'd like to just point
8 out, 4 is the one I'm most concerned with.
9 Because this, we're talking about operations,
10 relatively high doses. And the difference in
11 our approach and their approach is a factor of
12 four.

13 The other is dealing with the
14 residual period. Residual period is, you
15 know, never important, I mean, unless that's
16 the only period you're dealing with. But in
17 this case --

18 So I am most concerned about making
19 sense out of Issue Number 4. Because that's
20 going to have a real effect, depending on how
21 we resolve it, on dose reconstruction for
22 workers.

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1 MR. KATZ: Okay. This is Ted.
2 Dave's going to do a lot of responses on that,
3 and indications where he's going to I guess
4 write a White Paper on the matrix. We can
5 just use that as our action list for this I
6 think. Is that right? Will that work, Dave?

7 MR. ALLEN: I believe so, yes.

8 MR. KATZ: Okay. Is that okay with
9 you, Andy?

10 CHAIRMAN ANDERSON: Yes, that's
11 fine. Yes, I think we're -- the only thing we
12 need is some kind of a timeline.

13 MR. KATZ: Right. So, Dave, do you
14 already have a sense for how long you'll
15 require to do -- I mean, I can tell you for
16 Issue 2, Procedures is meeting in early
17 November.

18 So we won't have anything back from
19 Procedures before that. Unless I find when I
20 look in the records that we've already put
21 everything to bed. But, Dave, do you have
22 sense for how much time you'll need for these

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1 White Papers where you need to do White
2 Papers?

3 MR. ALLEN: The main issue is
4 finding the time to work on this particular
5 one.

6 MR. KATZ: I understand.

7 MR. ALLEN: I think I can
8 definitely shoot for having a White Paper to
9 the Work Group by the time the Procedures
10 Committee meets in early November.

11 MR. KATZ: Okay.

12 MR. ALLEN: If I can shoot for that
13 then they'll have both pieces of information.

14 And then can decide on when they, you know,
15 when a Work Group meeting is, you know, when
16 we can have one.

17 MR. KATZ: Okay. Then roughly
18 we're thinking about later in November
19 possibly having a meeting. Right, Andy?

20 CHAIRMAN ANDERSON: Yes.

21 MR. KATZ: And my guess is that
22 given how this has gone, I think we'll be fine

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1 to do it as a teleconference.

2 CHAIRMAN ANDERSON: Yes. I think
3 it's more, it's technically getting it all
4 documented is what we need.

5 MR. ALLEN: Yes. It's hard to
6 discuss mathematics on a telephone call.

7 CHAIRMAN ANDERSON: Yes. Well
8 let's see what the White Paper is. And we can
9 take it from there and see.

10 MR. ALLEN: Okay.

11 MR. KATZ: Very good.

12 CHAIRMAN ANDERSON: Okay. I think
13 that closes out our agenda. Are there other
14 issues that people have?

15 MEMBER FIELD: No.

16 CHAIRMAN ANDERSON: Or any other
17 sites that are coming up for us?

18 MR. KATZ: I don't believe any new
19 sites have been assigned, Andy. So I think
20 this will -- I think, if I'm not forgetting
21 something, that this DuPont will close all the
22 sites that you have in hand currently.

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1 CHAIRMAN ANDERSON: Yes. Okay.
2 Looking at my past files that seems to be the
3 issue.

4 DR. MAURO: Ted, this is John.
5 There are, in the pipeline, a number of AWE
6 Site Profile reviews that SC&A has worked on.
7 So just to let you know that this is great.

8 I mean, we have a single Work Group
9 that's knocking off lots of these. But there
10 are others. And, you know, you won't put on
11 the Agenda.

12 MEMBER KOTELCHUCK: Would you mind
13 naming them, so I can just keep notes on it?

14 DR. MAURO: Well I know that we
15 just issued Kansas City Plant. I believe
16 that, you know, I think that's an -- I'm not,
17 is that an AWE?

18 MEMBER KOTELCHUCK: I think that's
19 a DOE site.

20 DR. MAURO: Is that a DOE site?
21 Let's see, General Atomic.

22 MEMBER KOTELCHUCK: Okay.

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1 DR. MAURO: That one was -- I know
2 I finished reviewing that. I'm not sure where
3 that is.

4 MR. KATZ: I think General Atomic,
5 John, was assigned to TBD-6000. But I could
6 be wrong about that. I could be --

7 DR. MAURO: Oh, yes. You're right.
8 I'm sorry. We do have this sort of thing. I
9 know I've been working on a number of what I
10 would call AWE sites.

11 And I've completed, you know, some
12 have been completed. Some are close to
13 completion. So you're right. They would
14 either populate TBD-6000 or the AWE facility.

15 MR. KATZ: Right.

16 DR. MAURO: We'll work all that
17 out.

18 MEMBER KOTELCHUCK: Okay.

19 MR. KATZ: Right now we don't have
20 any other sites to add. But as John said,
21 there will be other sites that this Work Group
22 addresses. I'm sure of that.

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1 MEMBER KOTELCHUCK: Okay.

2 CHAIRMAN ANDERSON: Oh, yes. I
3 mean, we're not going to disband.

4 MR. KATZ: Right.

5 CHAIRMAN ANDERSON: Just so, you
6 know, as we're looking at what activities are
7 in the queue, we would be ready to go, you
8 know, after the next meeting with others.

9 MR. KATZ: Right.

10 MEMBER KOTELCHUCK: Okay.

11 CHAIRMAN ANDERSON: So just to kind
12 of not drag out our meeting here. To close it
13 out, kind of the action items I have here by
14 this coming Thursday, SC&A are going to
15 provide us with slides for the United Nuclear
16 presentation in Denver, as well as a close out
17 on Baker-Perkins.

18 MEMBER KOTELCHUCK: Just to request
19 on that. Ted, I am still having trouble
20 getting my CDC computer to work. It's been
21 driving me crazy. But the bottom line is, it
22 still isn't up.

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1 So that would you please send me
2 the Site Profile Review PowerPoint to my
3 regular number. And hopefully I'll have it
4 done in a few days. I'm working with ITSO on
5 it. Okay?

6 MR. KATZ: That's not a problem.
7 And then, John, just to note on the Baker-
8 Perkins TBD, it's just a 15 minute I think
9 session. It's a brief session.

10 CHAIRMAN ANDERSON: Okay.

11 MR. KATZ: So it should be a
12 relatively brief --

13 DR. MAURO: Are you asking me to be
14 brief?

15 MR. KATZ: I'm actually -- you can
16 go into somewhat more detail in the
17 PowerPoints. But Andy's going to have to be
18 relatively brief in his presentation.

19 DR. MAURO: Yes, no problem. Yes,
20 I will make it. And so I'll shoot for the two
21 of them. There's only two, United Nuclear and
22 Baker-Perkins.

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1 MR. KATZ: Yes.

2 DR. MAURO: The slide presentation
3 should be something that, all together 15, 20
4 minutes?

5 MR. KATZ: No, no. They're two
6 different sections. Baker-Perkins is brief.
7 United Nuclear has a normal full SEC session.

8 DR. MAURO: Oh, okay. Got it.

9 MR. KATZ: So don't scrimp at all
10 on United Nuclear. And Baker-Perkins just,
11 you know, I mean, be reasonably precise.

12 DR. MAURO: Sure.

13 MR. KATZ: But Andy can handle the
14 verbal part within time.

15 DR. MAURO: And we'll be on the
16 phone, that is, Hans, myself and Bill, in case
17 any questions come up. We were not planning
18 on attending.

19 MR. KATZ: Yes. And that's
20 excellent I think. If you're on the line that
21 will work.

22 DR. MAURO: Very good.

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1 CHAIRMAN ANDERSON: Okay. Any
2 other issues? I don't know. Do we have any
3 public commenters on DuPont or Baker-Perkins.
4 I think they're all off I guess, or on mute.
5 So with that, I'll entertain a motion to
6 adjourn.

7 MEMBER FIELD: So moved.

8 MEMBER KOTELCHUCK: I'll second,
9 thank you.

10 CHAIRMAN ANDERSON: Okay. We're
11 good to go. Thanks everybody.

12

13 MEMBER KOTELCHUCK: Thank you, bye
14 bye.

15 CHAIRMAN ANDERSON: Take care.

16 (Whereupon, the meeting in the
17 above-entitled matter was adjourned at 11:09
18 a.m.)

19

20

21

22

NEAL R. GROSS

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