

UNITED STATES OF AMERICA
CENTERS FOR DISEASE CONTROL

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NATIONAL INSTITUTE FOR OCCUPATIONAL
SAFETY AND HEALTH

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ADVISORY BOARD ON RADIATION AND
WORKER HEALTH

+ + + + +

112th MEETING

+ + + + +

WEDNESDAY
AUGUST 10, 2016

+ + + + +

The meeting convened at 8:30 a.m.,
Mountain Time, in the Residence Inn by Marriott,
635 West Broadway, Idaho Falls, James M. Melius,
Chairman, presiding.

PRESENT:

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

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

2 8:32 a.m.

3 **Welcome and Introduction**

4 MR. KATZ: So good morning everyone in
5 the room and on the line. This is the Advisory
6 Board on Radiation and Worker Health. We're about
7 to get started here. So some preliminaries for
8 people in the room and on the phone regarding
9 materials and materials for the Board meeting
10 today, the agenda, and then materials related to
11 that agenda.

12 They're on the table, on the side table
13 there for in the room and for on the line, they're
14 at the NIOSH website under the Advisory Board
15 section, Schedule of Meetings, today's date. So
16 you can go there and follow along with all the
17 presentations today.

18 The background reading is also posted
19 there, and in addition, on the agenda you'll see
20 the connection to live meeting for those of you on
21 the phone who want to connect by computer and watch
22 the slides as they change here.

23 But that's the only difference. You

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1 can just pull down those attachments and follow
2 yourself, or get on live meeting and follow the
3 presentations that way.

4 Let me also just note for people on the
5 phone, other than Board Members, you should have
6 your phones muted, except when we're talking about
7 a petition, in which case the petitioners have an
8 opportunity to comment during those sessions when
9 they're -- after the agency presentations.

10 So everyone else, though, should have
11 their phones muted. If you use a star 6, press star
12 6 to mute your phone, and that will take care of
13 it, and please don't put the call on hold at any
14 point, but hang up and dial back in if you need to
15 go, because putting the call on hold will cause
16 problems for everyone else's audio.

17 So let me just then run down roll call
18 for the Board Members, and as I did yesterday, and
19 I'll cover the conflicts so you don't have to worry
20 about your own conflicts as we go. So Dr.
21 Anderson.

22 (Roll call.)

23 MR. KATZ: All right, and that takes

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1 care of things and Jim, the agenda.

2 CHAIRMAN MELIUS: Okay, and our first
3 order of business is Henry Anderson, who's going
4 to do a presentation on Westinghouse Electric.
5 It's an SEC Petition issue. So Henry.

6 **Westinghouse Electric SEC Petition**

7 MEMBER ANDERSON: Okay. This is the
8 Special Exposure Cohort Evaluation Report for
9 SEC-00217, Westinghouse Electric in Bloomfield,
10 New Jersey. The operations at WEC, that's what
11 we'll use instead of Westinghouse, WEC, was August
12 '42 to '49, and they produced limited quantities
13 of uranium metal.

14 They also produced about 200 pounds of
15 thorium metal. From February '58 and May '58, they
16 did some test rolling of the uranium tubes for
17 Fernald, and then in June in 1959, they also did
18 an additional test rolling of tubes. The initial
19 SEC, which I think was 007 -- see here what was that?
20 I forget that number what it was, 00157 -- 00157
21 and 2010.

22 They added the 1942 to '49 period from
23 that initial SEC request. But in that -- back in

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1 2010, in that response to petition, there was no
2 approach for reconstructing doses during the
3 residual period, which of course followed after
4 that, '50 to 2006.

5 And that resulted in a number of years
6 later in a new petition, SEC-00217, which is the
7 one we're reviewing now, was qualified in January
8 2015 and requested that all employees who worked
9 there from 1950 to March 2011 be added to the SEC.

10 And on further review, NIOSH found that
11 there were two additional operational periods, as
12 well as three residual periods. The original
13 operational period, which already was in the SEC,
14 but the subsequent ones that I already mentioned
15 were proposed. NIOSH determined that for those
16 new operational periods, they could not
17 reconstruct the doses, and therefore proposed
18 adding those additional workers to the SEC.

19 And they determined that doses could be
20 constructed for the three residual periods, and
21 that is -- we agreed with the first part of adding
22 the additional operational periods to the SEC, and
23 then we reviewed their proposal on how to

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1 reconstruct doses for the residual periods.

2 Again, we just focused on the residual
3 periods, and SC&A developed two observations and
4 two findings, which you should have seen that
5 report. Observation 1 was that they noted that
6 there were three different employment day -- hourly
7 day periods used by the company during the periods
8 of employment, and therefore that the NIOSH
9 proposal was not based on using the different
10 hourly periods or daily hours.

11 SC&A suggested they needed to adjust
12 their exposure assessments based on the periods of
13 time that the workers were employed, and NIOSH
14 agreed that they would adjust those assessments in
15 the protocol used.

16 Observation 2 was there was concerns
17 about the deposition time used in the dose
18 reconstruction model, and that was not consistent
19 with what NIOSH had proposed on page 37 of NIOSH
20 2015 report. NIOSH indicated that they would
21 update the calculations for the third residual
22 period.

23 First finding was again on the residual

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1 period exposure issues. Calculating air
2 concentrations during the period was not
3 consistent. The proposal was not consistent with
4 the guidance in OTIB-70, and NIOSH felt that this
5 really was a Site Profile issue and not
6 specifically related to the SEC and the ability to
7 reconstruct doses.

8 But again, we agreed that it was in fact
9 -- should be included in the Site Profile, and not
10 -- would not particularly impact the SEC in
11 determination of ability to do a dose
12 reconstruction. However, there was a need to look
13 at how the air concentrations would be calculated
14 and making them consistent through the various
15 approaches.

16 Finding 2 was for again calculating the
17 doses during the residual period. Again, going
18 back to the TIB-009 from 2004, that guidance needed
19 to be revised since the approach in TIB-009 that
20 they were referencing using can't be used to
21 calculate ingestion intakes from transfer surface
22 contamination to hands and the mouth, and that the
23 TIB-009 understates the source of ingestion,

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1 especially for the first residual period.

2 However, that observation also applied
3 to all of the residual periods, and NIOSH agreed
4 to modify their ingestion intakes accordingly, and
5 also felt that this was a Site Profile issue, and
6 our Committee agreed with that.

7 So the two observations that SC&A made
8 NIOSH agreed with, and therefore were resolved, and
9 both findings were determined to be Site Profile
10 issues and therefore bounced over to be taken care
11 of or addressed anyway in the Site Profile
12 revisions.

13 There was general agreement on how to
14 address Finding Number 2, but Finding Number 1
15 would require some additional review by NIOSH as
16 to the preferred approach for addressing air
17 concentrations during residual periods at the WEC.

18 So there's more work for NIOSH to
19 finalize that approach, but since we've moved these
20 to the Site Profile, we felt the SEC and the -- if
21 they're able to finalize all of this, then the dose
22 reconstruction approach could be used, and
23 therefore the residual periods could be -- doses

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1 could be reconstructed there.

2 That's our conclusions and updates on
3 addressing the residual period. Committee
4 Members, any further comments?

5 CHAIRMAN MELIUS: Agreed, agreed.

6 MEMBER ANDERSON: We apologize for
7 moving responses to the Site Profiles, but it did
8 seem that NIOSH made a good point, that this had
9 not -- would not be impacting the SEC approach, but
10 simply would be part of a Site Profile, how you
11 would address that in the Site Profile.

12 CHAIRMAN MELIUS: Can you just clarify
13 what that means though?

14 MEMBER ANDERSON: Yes.

15 CHAIRMAN MELIUS: Is this a statement
16 that the Work Group is satisfied that NIOSH can
17 calculate, you know, the doses during the residual
18 period with, you know, sufficient accuracy? I
19 mean it's just not clear specifically what you're
20 -- when you say you move it to a Site Profile, well
21 it does sounds like you're -- like giving it to
22 somebody else to look at it.

23 I just want to make -- because I mean

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1 if you go back to how we evaluated SEC, usually it's
2 like, you know, well can you actually show that you
3 can do the dose calculation and NIOSH at one point
4 used to show us. But now here we've split this off.
5 We're saying it's --

6 DR. NETON: Well, this is consistent
7 with --

8 CHAIRMAN MELIUS: I just want to get on
9 the record what we're -- clarify what we mean.

10 DR. NETON: I think what we're saying is
11 that we have a method to plausibly bound the
12 exposures with sufficient accuracy at these --
13 based on these findings. This is fairly normal how
14 we do business in these reviews. If you can come
15 up with -- if there's nuances in the methodology,
16 say for instance there's one approach, TIB-9, the
17 bounding air concentration value, we did an
18 inappropriate backwards extrapolation.

19 We will go back and we actually outline
20 the approach in our responses. That's not listed
21 here but -- of how we would technically do that and
22 the Work Group accepted our technical response.
23 We could go over that.

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1 CHAIRMAN MELIUS: So the Site Profile
2 issue is, well I want to say tweaking or modifying,
3 you know, adjusting that.

4 DR. NETON: Essentially.

5 CHAIRMAN MELIUS: Not doesn't --

6 DR. NETON: It's an adjustment to our
7 value. It doesn't change substantively what we've
8 done, but it will be an adjustment to the
9 calculation.

10 MEMBER ANDERSON: Yeah.

11 CHAIRMAN MELIUS: Yeah. Wanda.

12 MEMBER MUNN: So that was almost
13 clarification enough for me. So essentially we
14 are squared away here. You can do the dose
15 reconstructions that you need to do; correct?

16 DR. NETON: Yes.

17 MEMBER MUNN: Correct? Okay, very good.
18 Thank you.

19 CHAIRMAN MELIUS: Can I just make one
20 sort of procedural suggestion, is that in the
21 future when we're putting together our big pile of
22 documents for the meetings, that we at least
23 include some of that backup information, because

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1 the slides, you know, shouldn't -- I mean they're
2 not, you know, we don't want 150 slides.

3 But I didn't -- at least the stuff that
4 I downloaded and have, I don't see anything.

5 MR. KATZ: It would have been in the
6 transcript we don't have yet.

7 CHAIRMAN MELIUS: Okay. Yeah, yeah.
8 Okay.

9 MEMBER ANDERSON: We're moving too
10 quickly get this completed.

11 CHAIRMAN MELIUS: No, I understand,
12 yes, yes. I just want what's on the record so that
13 we have a record of what the Board's reviewed and
14 Work Group's reviewed and understanding.

15 MEMBER ANDERSON: Yeah, yeah, yeah.

16 CHAIRMAN MELIUS: I'm not questioning
17 the conclusion per se.

18 MEMBER ANDERSON: Okay, yeah.

19 CHAIRMAN MELIUS: Any other questions?
20 Board Members on the phone, do you have questions?

21 MEMBER ZIEMER: This is Paul. I have
22 no questions.

23 MEMBER VALERIO: This is Loretta. No

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1 questions.

2 CHAIRMAN MELIUS: Okay. Dr. Poston?

3 (No audible response.)

4 CHAIRMAN MELIUS: Okay. Probably
5 muted. Yes, okay. So we do have an issue in terms
6 of we don't have a Class, specific Class Definition
7 ready yet. So what I've talked to Stu and Henry
8 and Jim Neton and Jenny Lin and our attorney, and
9 what we're going to do is I think we can vote to
10 accept the recommendation from the Work Group.

11 We will, you know, prepare the Class
12 Definition. It's complicated because it's
13 multiple periods and we need to get it right, in
14 terms of the dates. And then for our next Board
15 call, we'll have the letter that will contain that
16 definition and exactly what we are -- what we have
17 reviewed today, but just put it into the normal --

18 MEMBER ANDERSON: Residual period.

19 CHAIRMAN MELIUS: Put it in the
20 residual period. Just normally you say the
21 residual period's, you know, '91 on or '91, but in
22 this case it's multiple ones and it's a little
23 tricky. So that would be the plan. Are the

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1 petitioners going to be on the line for this one?

2 Do you know?

3 Is the petitioner for -- or petitioners
4 for Westinghouse on the line and wish to speak?
5 You're not required to, but I just wanted to --
6 okay. Hearing no comment, any further questions
7 from the Board?

8 (No audible response.)

9 CHAIRMAN MELIUS: If not, then Ted do
10 you want to --

11 MEMBER MUNN: One more time though.
12 What we are about to agree to is that the Work Group
13 finds that NIOSH is capable of performing dose
14 reconstructions for the operational and residual
15 periods stated so far.

16 (Simultaneous speaking.)

17 MEMBER MUNN: Residual periods only,
18 all right. Just clarifying. Thank you.

19 CHAIRMAN MELIUS: Yeah. We've
20 already approved an SEC for the -- that's what made
21 this complicated.

22 MEMBER MUNN: That's what I thought,
23 yeah.

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1 MEMBER BEACH: Well and Slide 4 further
2 complicates it with the dates intermixed between
3 operational and residuals so you have to --

4 CHAIRMAN MELIUS: Yeah, yeah, no,
5 right. That's why, that's why.

6 MR. KATZ: That's why we're waiting on
7 the letter.

8 CHAIRMAN MELIUS: The letter, yeah.

9 MEMBER ANDERSON: The reality is
10 anyone who actually worked there during that
11 period, other than the residual period, would be
12 in the SEC. But if they were onsite subsequent to
13 that, they wouldn't be in the SEC --

14 MR. KATZ: Correct, right. Okay. So
15 Anderson?

16 MEMBER ANDERSON: Yes.

17 MR. KATZ: Beach?

18 MEMBER BEACH: Yes.

19 MR. KATZ: Clawson.

20 MEMBER CLAWSON: Yes.

21 MR. KATZ: Field.

22 MEMBER FIELD: Yes.

23 MR. KATZ: Kotelchuck?

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1 MEMBER KOTELCHUCK: Yes.

2 MR. KATZ: Dr. Lemon's absent. I'll
3 collect his vote after this meeting. Lockey.

4 MEMBER LOCKEY: Yes.

5 MR. KATZ: Melius?

6 CHAIRMAN MELIUS: Yes.

7 MR. KATZ: Munn?

8 MEMBER MUNN: Yes.

9 MR. KATZ: Poston?

10 MEMBER POSTON: Yes.

11 MR. KATZ: Yes, and Richardson's
12 absent. I'll collect his vote. Roessler?

13 MEMBER ROESSLER: Yes.

14 MR. KATZ: Schofield?

15 MEMBER SCHOFIELD: Yes.

16 MR. KATZ: Valerio?

17 MEMBER VALERIO: Yes.

18 MR. KATZ: And Ziemer?

19 MEMBER ZIEMER: Yes.

20 MR. KATZ: Okay, and it's unanimous
21 except for the absences, and the motion passes.

22 (Off mic comments.)

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1 **Blockson SEC Petition Review**

2 CHAIRMAN MELIUS: Okay. I will do the
3 -- this is the Blockson that we dealt with
4 yesterday. Advisory Board on Radiation Worker
5 Health. The Board has completed its evaluation of
6 Special Exposure Cohort (SEC Petition 00225)
7 concerning workers at Blockson Chemical Company in
8 Joliet, Illinois, under the statutory requirements
9 established by the Energy Employees Occupational
10 Illness Compensation Program Act of 2000,
11 incorporated into 42 C.F.R. CF-83.13.

12 The National Institute for
13 Occupational Safety and Health (NIOSH) has
14 recommended that individual dose reconstructions
15 are feasible for all employees who worked in any
16 area at the Blockson Chemical Company site in
17 Joliet, Illinois during the period July 1, '60,
18 1960, through December 31st, 1991.

19 NIOSH found they had access to adequate
20 exposure monitoring and other information
21 necessary to do individual dose reconstructions
22 with sufficient accuracy for Members of this group,
23 and therefore a Class covering this group should

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1 not be added to the SEC. The Board concurs with
2 this determination.

3 Based on these considerations and the
4 discussion at the August 9th and 10th, 2016 Board
5 meeting held in Idaho Falls, Idaho, the Board
6 recommends that this Class not be added to the SEC.
7 Enclosed is the documentation from the Board
8 meeting, where this SEC Class was discussed.

9 This documentation includes copies of
10 the petition, the NIOSH review thereof and related
11 materials. If any of these items are unavailable
12 at this time they'll follow shortly. Any comments,
13 corrections other than an extra comma in the first
14 paragraph?

15 MEMBER MUNN: As long as you get that
16 comma out of the third line, you're fine.

17 CHAIRMAN MELIUS: Okay. I get a B
18 plus.

19 MEMBER MUNN: Yeah, real close, real
20 close.

21 CHAIRMAN MELIUS: Oh no, she's a tough
22 grader. B plus. That's stretching it.

23 MEMBER MUNN: That's terrible, but

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1 true.

2 CHAIRMAN MELIUS: Okay. Okay Tim?
3 Okay, okay. Henry's already done that, so I don't
4 think we have any other Board business or anything.
5 Okay. Update on the Work Groups. I've got one
6 volunteer for the Procedures Subcommittee. I have
7 about four or five for the Argonne East. I'll do
8 that.

9 So I will go ahead with Argonne Est.
10 Anybody that didn't volunteer that's interested,
11 let me know and we will -- there's still time to
12 do that. I don't think we have any others that
13 we're ready to move, Work Groups and so forth.

14 So anybody interested in Procedures,
15 also let me know. We'll do that, and I think that
16 we don't really have any business then until 10:45
17 and that needs to be timed. So yeah. So we need
18 to start at 10:45. Henry, we're going to have
19 Henry repeat United Nuclear. Somebody's
20 forgotten but --

21 MEMBER ANDERSON: We could have a
22 discussion about the converting from surface to air
23 ventilation if you want to in the residual periods,

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1 but you have a plane to catch.

2 CHAIRMAN MELIUS: We're recessing.
3 We'll reconvene at 10:45.

4 (Whereupon, the above-entitled matter
5 went off the record at 8:57 a.m. and resumed at
6 10:48 a.m.)

7 CHAIRMAN MELIUS: Okay. We are now
8 reconvening and our next is Savannah River update,
9 and Stu Hinnefeld's giving that.

10 MR. KATZ: Right, and while Stu's
11 coming up, let me just check on the line and see
12 about Board Members we have on the line. Dr.
13 Ziemer, are you on the line?

14 (No response.)

15 MR. KATZ: And Dr. Poston. So Paul,
16 John, are you on the line?

17 (No response.)

18 MR. KATZ: Okay. Well, we have a
19 quorum, despite that they're not on right now.

20 (Off the record comments)

21 CHAIRMAN MELIUS: Okay, okay. Stu, go
22 ahead.

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1 **Savannah River Site SEC Petition Update**

2 MR. HINNEFELD: Okay. Thank you, Dr.
3 Melius. I'm here to provide an update with --
4 about Savannah River, and specifically information
5 about the remaining tasks that we have on our
6 agenda, in order to resolve the issues remaining
7 with reconstructing doses, to determine if we can
8 reconstruct doses at Savannah River.

9 We have the delivery schedule falls
10 into several categories. One is the coworker
11 models in accordance with the Draft Implementation
12 Guide on Coworker Models. The neptunium work,
13 which is a little more of an unusual work than say
14 plutonium or tritium; thorium work, which again is
15 somewhat more unusual; metal hydrides, which is
16 tritium work but of a form that is, requires more
17 care than say tritiated water.

18 And then the subcontractor follow-up,
19 which is a method we believe, where we can determine
20 whether in fact Savannah River monitored
21 subcontractors in a fashion that they say they did
22 or in fact in the manner that they intended.

23 A narrative coworker model, so we

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1 intend to issue and use an interim technical
2 information bulletin that includes only a portion
3 of the required coworker models. It will contain
4 the first couple of models that we will use, and
5 these are in accordance with the draft Coworker
6 Implementation Guide.

7 As I recall when we presented the draft
8 Coworker Implementation Guide, our instruction was
9 to well, it's nice in abstract, but we'd like to
10 see it in practice. So can you go do coworker
11 models in accordance with this Implementation
12 Guide.

13 So these are the demonstration models
14 that will show that you can do this with -- you can
15 do coworker models in accordance with the
16 Implementation Guide. In each case at Savannah
17 River, we were able to identify construction
18 workers as apart from non-construction trades
19 workers, and treat them as in their individual
20 populations.

21 So we would have a coworker for
22 construction workers and a coworker for
23 non-construction workers. The first two are

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1 models that we would -- the attached models are the
2 tritium coworker model and the exotic
3 radionuclides or what we sometimes call the
4 trivalent nuclide coworker model.

5 Our schedule for delivery of this for
6 the Work Group, for review by the Work Group and
7 SC&A is in October of this year. So a couple more
8 months. For the remainder of the coworker models,
9 when those are prepared, that will comprise
10 Revision 4 of the TIB, and other than, you know,
11 which follows after the interim one I just
12 described. And it will contain all the remaining
13 nuclides of interest, which of course are
14 plutonium, uranium, neptunium and its fission
15 products, and also individual ones for strontium,
16 cesium and cobalt. Those models are scheduled to
17 be completed in February of next year.

18 Our neptunium evaluation is -- there
19 are several reports to go into the neptunium
20 evaluation. One is the evaluation of neptunium
21 operations at Savannah River. The second is the
22 evaluation of the personal health physics and
23 department codes to identify neptunium workers,

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1 meaning these are the neptunium workers who were
2 the ones who were most highly exposed to neptunium.
3 They worked on neptunium.

4 It does not mean they will be the only
5 ones to receive the coworker dose. I mean anyone
6 who conceivably could have been in the location
7 where the neptunium was working, where neptunium
8 work was going, would likely get the neptunium
9 coworker dose.

10 And then the report about a specific
11 construction project that occurred in the vicinity
12 of the neptunium work. This is the same building
13 or essentially a separated portion of the building
14 where the neptunium billet line was. There was a
15 new construction project for the plutonium fuel
16 fabrication facility.

17 The report about neptunium operations
18 provides an overview of neptunium operations that
19 are conducted there, and described the radiation
20 monitoring, the radiation safety monitoring and
21 the personnel monitoring methods that were done
22 during the neptunium operation, and it compares
23 doses calculated during your analysis, using your

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1 analysis versus whole body, to illustrate the whole
2 body count methods or the bounding methods.

3 So we have bioassay of both and that the
4 whole body method provides bounding doses, so
5 that's what we intend to use. Scheduled
6 completion for that report is later on this month.

7 The evaluation of personal health
8 physics and department codes to identify neptunium
9 workers at Savannah River will demonstrate that we
10 can identify the workers who are potentially
11 exposed to neptunium using the dosimetry codes to
12 support the use of limited data in a coworker model.

13 Now what that means is that whereas for
14 tritium or plutonium, we have lots and lots of
15 bioassay data. There weren't very many neptunium
16 workers, and so you don't have a lot of neptunium
17 data. You may have 50 people monitored in a year,
18 for instance, something like that.

19 So that's to illustrate though that the
20 neptunium, you know, the report -- the intent of
21 this report is to show that neptunium work was
22 really limited, and so that explains the limited
23 number of people that you have to build a coworker

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1 model.

2 For instance, here's an example of what
3 I was just saying. People in the reactor areas
4 were not monitored for neptunium because there
5 wasn't potential for exposure in the neptunium
6 areas. But we do have -- we have identified areas
7 where the neptunium work occurred, and these would
8 be the primary areas of exposure, and the scheduled
9 completion for that report then follows the
10 previous one and the next month is the scheduled
11 completion for that report.

12 In the evaluation of the construction
13 worker exposure while they were building the
14 plutonium fuel fabrication facility is -- it looks
15 at this construction project with neptunium billet
16 production in another part of the building, that
17 shows the data available and the isolation that was
18 put in place between the neptunium operation and
19 the clean construction, and that report is
20 scheduled for the end of the year.

21 Moving on to thorium then, we have a
22 couple of reports that will be addressing the
23 thorium exposures or exposures in thorium areas.

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1 First is thorium exposures after 1972 Savannah
2 River Site and thoron exposures.

3 When you have thorium around, you have
4 to consider at least in some fashion the thoron
5 exposures that may have occurred. So those are the
6 two reports that we are concerned about here.

7 The thorium report will talk about the
8 post '72 thorium exposures, describes the thorium
9 work, and show that we can identify the employees
10 who were most highly exposed to thorium, the ones
11 that were monitored for trivalents, as thorium is
12 one of those trivalent nuclides through May 1980
13 at least.

14 So that would show that the most highly
15 exposed people, you have bioassay data for, so your
16 coworker model then is bounding for people who
17 could conceivably have been exposed to the thorium.

18 Then after May, we intend to show that
19 there's sufficient workplace monitoring
20 information to support these, the ten percent back,
21 which was the control essentially for the facility.
22 So that's the remaining portion of that thorium
23 report. That scheduled completion date is in

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1 January of 2017.

2 The thoron exposure study will
3 demonstrate the appropriateness of bounding
4 approach based on tank farm air monitoring. In the
5 tank farm, there is a substantial quantity of
6 thorium-bearing waste, liquid waste stored in the
7 tank farms. So there's no particular, you know,
8 no particular exposure potential to the thorium in
9 those tanks, but there's thoron generation from
10 those tanks.

11 And we believe we can show that the
12 thoron exposures in that vicinity, which we can
13 estimate are bounding for the antithoron or thorium
14 location. That also is reported, is scheduled to
15 be completed in January.

16 Moving on to metal hydrides, metal
17 hydrides again are a more complicated tritium
18 exposure scenario. We have a report to write that
19 describes the metal hydride exposures. It
20 discusses the research work, operations and
21 associated exposures to metal hydrides at Savannah
22 River, and that is expected to be complete pretty
23 shortly. October 2016 we expect to have that

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1 report completed.

2 We've addressed hydrides at a number of
3 facilities and we think we know how to address
4 hydrides. We just need to make sure that
5 appropriate care is taken to do that appropriately.
6 Then the final item on the five that I showed at
7 the beginning is the subcontractor follow-up.

8 Just fairly recently, we identified a
9 large collection of what are called construction
10 job plans. Construction job plan describes for a
11 specific job task what the work is to be done and
12 for our interest, what are the monitoring
13 requirements for the people working on that job and
14 who are the people working on that job.

15 So the workers listed on those job plans
16 then should have the specified bioassay data in the
17 bioassay records at Savannah River, which we've
18 captured.

19 So our expectation then is to take a
20 sampling, a random sampling of these plans,
21 identify the people, you know get -- write down the
22 people who are identified on those plans as doing
23 this work and the monitoring you were supposed to

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1 get, and check and see that they did in fact have
2 the monitoring that they had.

3 If they didn't, then you can say well,
4 it appears that they didn't monitor the people the
5 way they intended to, and there is probably an issue
6 here, a problem that maybe we can't get past.

7 If they did, we believe that's evidence
8 that they did in fact monitor the way they said they
9 would, and that the monitoring should be considered
10 relatively complete, even for the non-in-house,
11 the people that worked on the construction jobs.
12 The schedule for that, completion of that report
13 is in February of next year.

14 So the final slide is the summary of the
15 five issues or issue topics, the various
16 deliverables and deliverable dates for those
17 products. So that's the final slide on the
18 presentation. That's our expected path forward
19 for the Savannah River Site.

20 CHAIRMAN MELIUS: And correct me if I'm
21 wrong, Stu, but my recollection, what I've -- when
22 I look back at this is that this petition came in
23 in 2007, and it qualified in 2008, early 2008.

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1 MR. HINNEFELD: Those dates sound
2 right.

3 CHAIRMAN MELIUS: Yeah '08, and then
4 the first Evaluation Report was 2008. So we're
5 going on ten years since the petition was
6 submitted, and we still haven't, you know, we've
7 got at least another year to go, and probably longer
8 given how long it takes to evaluate these coworker
9 models.

10 They take extensive evaluation, and I
11 actually don't -- this issue with the construction
12 trades workers, the last item, subcontractor file,
13 that's a new one. I hadn't heard about that, the
14 data set before and so forth. So to me, that is
15 -- would be one part of validating any construction
16 contractor coworker model, whether that was
17 actually -- I mean how much is missing, how much
18 is available, you know, what were in the records.

19 So we wouldn't even be able to start
20 evaluating any of the other models until the -- for
21 construction workers until after that becomes
22 available. So that's my understanding anyway.
23 I'm asking because it's a new one, so I'm -- if I'm

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1 --

2 MR. HINNEFELD: Well, I think it's an
3 important part of deciding whether coworker models
4 or whether construction workers were monitored in
5 accordance with the way they were supposed to be
6 monitored. So from that standpoint, there may not
7 be a reason to evaluate coworker, a construction
8 worker coworker model prior to answering that
9 question.

10 The manner in which, you know, these are
11 done, from our standpoint, I think there's an
12 efficiency from our standpoint to do the coworker
13 models, both construction and non-construction
14 coworker models as we do them, and then the
15 evaluation could go in the order that the Board
16 prefers.

17 CHAIRMAN MELIUS: Yes. Well no. I
18 understand the efficiency argument. I think one
19 of the issues here, and I'm not sure it's
20 correctable at this point in time or correctable
21 ever would be is the issue that, you know, the
22 original petition was for -- that was approved was
23 for construction workers.

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1 MR. HINNEFELD: Right.

2 CHAIRMAN MELIUS: That got modified a
3 little bit for the thorium. It included all
4 employees or I can't remember the exact Class
5 Definitions and so forth. And but, you know, I
6 guess technically speaking or whatever, we're --
7 it's the construction workers that are in the
8 petition that have been waiting or will be waiting
9 over ten years by the time this has been evaluated.

10 Congress gave NIOSH 180 days, which we
11 haven't followed and so forth. So it's sort of a
12 fundamental issue, I think, of fairness. Somebody
13 submits a petition, there ought to be some timely
14 completion of the information that would, you know,
15 allow the Board to even evaluate whether or not
16 those dose reconstructions can be done with
17 sufficient accuracy and so forth.

18 That's why I asked to have you present
19 this information here and give us an update, but
20 it has lagged. We haven't had a Work Group meeting
21 in over two years going on two and a half I believe,
22 yeah, and we haven't had any new reports from NIOSH
23 in that period of time.

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1 You know, there are various reasons for
2 that. I'm not saying you're stalling or anything
3 that's all. You've had some security issues and
4 other issues. But I just hardly think it's really
5 fair to the people that work there that they -- and
6 submitted the petition, that their dose
7 reconstructions essentially can't be done.

8 We can't say they're being done
9 accurately right now, and you agree that there was
10 -- NIOSH agreed there was some issues to be
11 evaluated, and here we are going on ten years and
12 not able to evaluate that. So let me see if there's
13 other comments from the Board. Brad, you had your
14 -- you're head of the Work Group now.

15 MEMBER CLAWSON: Part of my issue is
16 yes, it's the construction workers, and Savannah
17 River is a different one because their construction
18 workers or trade unions, they have a construction
19 site inside them plus out, and we really, I don't
20 think, have been able to sort them all out.

21 Just for information, there's 533
22 subcontractors with how many independent
23 contractors underneath them. I don't know.

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1 Every time we bring this up at Savannah River we
2 get laughed at, because they said there's no way
3 you're going to be able to do that.

4 My issue is is also to -- we have
5 already, SC&A has already submitted documentation
6 on the last coworker. Now things have changed from
7 that time. We still haven't even got responses
8 back from that because we're changing -- we were
9 changing the process a little bit.

10 I believe we're on the third bite of the
11 apple on neptunium. We have not been able to do
12 that now, and what's to say after another year here,
13 that this is going to be the holy grail. This is
14 the one that is going to be able to do it, because
15 we've already been through this three times.
16 Thorium, americium.

17 We haven't been able to -- we haven't
18 been able to do this now, and please understand,
19 I'm not criticizing because what you guys have done
20 has been a total -- there's an awful lot of
21 information out there. But as a Board Member, I
22 don't even have anything to look at, to even know
23 the path forward that we are planning at this time

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1 until you guys are complete.

2 I feel I have an obligation to the
3 workers at Savannah River too, and this new 3,000
4 pages, this -- to tell you the truth when I got this
5 was the first time that I'd even heard anything
6 about that. What's to say that this is even going
7 to be able to tell us what we need?

8 I'm at my wit's end really. I don't
9 know which way to be able to go. And it's nobody's
10 fault. It's all of our fault. But at what time
11 do we say enough is enough, you know. We've got
12 people, as we've heard at many of our Board meetings
13 that are calling in and what are we -- we're dying
14 off.

15 I can't remember what the one comment
16 was at the last Board meeting, was it was almost
17 seven people a month, and that was just a rough
18 estimate. I just -- I'm with everything that we've
19 gone through already, what's to say that this is
20 going to really even work? This site is unique,
21 just like all of them. I just -- I'm pretty
22 frustrated.

23 CHAIRMAN MELIUS: Anybody else wish to

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1 comment?

2 Let's hear from the petitioner then,
3 okay.

4 MR. KATZ: Maybe you ought to check and
5 see about Paul.

6 CHAIRMAN MELIUS: Are they on the line?
7 They're on the line.

8 MR. KATZ: Well, I don't know if they
9 -- they weren't on the line before.

10 CHAIRMAN MELIUS: Are any of the Board
11 Members on the line that weren't on when we started
12 this discussion? Paul or Dr. Poston?

13 MEMBER ZIEMER: This is Ziemer. I
14 just want to let you know that I was on the line
15 and came in just as Stu was starting. I'll just
16 say that I'm pondering the comment that Dr. Melius
17 made and that Brad has made. It is a concern, of
18 course, but also we have some what looks like really
19 important data at this point. I certainly feel
20 like I'd rather have a chance to take a good look
21 at that.

22 CHAIRMAN MELIUS: Yeah. Again yeah,
23 the problem with these sites is there always will

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1 be data, more data. We'll find more records.

2 We've, you know, chased them and this
3 schedule is scheduled for NIOSH work on -- even if
4 we assume they'll make this schedule, which I'm
5 skeptical of, but just based on all of our reports,
6 and that includes our own efforts also, that this
7 all usually takes longer than we estimate.

8 But then we still have to evaluate it
9 and all of these reports, and that takes a period
10 of time, and you know, my guess is even if we file
11 this, it's at least another year beyond that. So
12 how much longer do you go on and then, you know,
13 that's just even assuming we don't find more
14 information or more issues that need to be further
15 evaluated as we go along.

16 We keep saying -- we can't just keep
17 saying that there will be more data or we need to
18 look at this, because then it seems to become an
19 endless process. But that's my view. Josie.

20 MEMBER BEACH: I don't know if I have
21 a question or a comment so much, but I was looking
22 at the Oak Ridge Associated Universities. They
23 identified the large collection, 3,000 pages of job

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1 plans.

2 I guess I'm interested how much
3 information on workers and are you going to be able
4 to put workers in certain areas and how long they
5 worked, whether they were badged or not? I mean
6 how much information are you going to get from that
7 3,000 pages of job plans? Do you have any concept
8 of that at this point?

9 MR. HINNEFELD: Well, I think what we
10 would expect those job plans to say was that they
11 would describe a piece of work. Presumably they
12 would say where that work was, which facility the
13 work is in, and they will name the people who were
14 working on this specific task.

15 So the issue here is that, you know, as
16 opposed to the in-house workers, say the tritium
17 workers or the plutonium workers from in-house
18 contractors on a routine bioassay monitoring
19 program. So they were monitored at some routine
20 frequency. Construction workers weren't
21 monitored with a routine frequency. They were
22 monitored based on the requirements of the task
23 they were assigned to.

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1 So this construction job plans, what we
2 believe is it shows a list of people and the job
3 that they were assigned to for some period of time,
4 and the required monitoring for that job. And so
5 this is -- it's an avenue to look at, and this has
6 been, if I'm not mistaken, it's been sort of a
7 continuing question.

8 The site says, you know, the site's
9 indications are that they would monitor
10 construction workers in accordance with what they
11 were doing appropriately. That's essentially the
12 intention here. There have been people who have
13 questioned that, whether that really happened.
14 This is a way, we think, to maybe get an answer to
15 whether they really did what they said they were
16 doing, when by monitoring construction workers by
17 the tasks they were assigned.

18 So that's what we intend to do. We
19 believe we have the records, a complete set of
20 records that we can check, and when I mean records,
21 I mean monitoring records, so that if a job plan
22 says Joe Smith should be monitored for these things
23 during this period, then we should able to go to

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1 those records and find Joe Smith's records for
2 those things during that period. That's what we
3 expect to learn from it.

4 If Joe Smith doesn't have any
5 monitoring data for that period, for those items,
6 then we can conclude certainly that it doesn't look
7 as if they really did monitor everybody in
8 accordance to the tasks that they were assigned to.

9 MEMBER ZIEMER: Well, this really
10 speaks to the quality and the reliability of the
11 data, rather than the fact that it's new
12 information. It's a way of in a sense validating
13 that you're using or not using the proper data.

14 MR. HINNEFELD: Yes.

15 CHAIRMAN MELIUS: Yeah, Brad.

16 MEMBER CLAWSON: Do we have this 3,000
17 pages of information?

18 MR. HINNEFELD: Yeah. They're in
19 SRDB.

20 MEMBER CLAWSON: Okay, and so have we
21 actually even -- do we have a good sense of what
22 we've got, or is this just -- you know my question,
23 and I'm just going to tell you why is because we've

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1 heard -- we just found 500 boxes of new data and
2 then six months later, well, it really wasn't what
3 we were figuring, it turned out to be.

4 I'm just wanting to know what this --
5 if we have evaluated this 3,000 pages and this is
6 what -- this is going to do what we think it should.
7 I guess have we even -- are we just starting into
8 this or do we have a good feel for it?

9 MR. HINNEFELD: I'm looking at Tim
10 here. We have the scanned copies of the 3,000
11 pages, is that right?

12 DR. TAULBEE: That's correct.
13 However, there is a caveat to that. There were two
14 files that did not clear ADC review, and those are
15 currently being reviewed.

16 So we did capture, but when we scanned
17 them, we gave all of the records to Savannah River
18 and they cleared, I want to say is 11 of the 13
19 files, and there's two more that they are still
20 clearing, and it's on our top priority to get.

21 But we are developing the sampling plan
22 now to capture who, which pages, which people we're
23 going to be grabbing, to go and then look at the

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1 monitoring data. So there is 2 of the 13. We've
2 already scanned them. We're just getting the ADC
3 review right now.

4 MR. HINNEFELD: And there was an
5 oversight, right? It wasn't like there was a
6 problem. They just didn't clear because of an
7 oversight at Savannah River. And to be clear,
8 we're doing a random sampling of the 3,000 pages.
9 We're not doing all 3,000 pages.

10 CHAIRMAN MELIUS: And but I'm
11 assuming, and either Stu, you or Tim can probably
12 answer this, is that this February '17 report
13 would be -- provide a description of what you found
14 and a -- and then this random sampling evaluation
15 of it.

16 MR. HINNEFELD: Yes.

17 CHAIRMAN MELIUS: So at that point
18 we'll, it's the time at which we would learn?

19 MR. HINNEFELD: Yes.

20 MEMBER CLAWSON: And if the sampling
21 plan worked out, if it covered what we want. This
22 is where we've been before, and this is -- well,
23 I'm going to be right honest with you and I know

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1 it's probably no surprise. I'm ready. I'm done.
2 There's -- we've already been down these roads
3 before I think, and we ought to bring it to an end.

4 CHAIRMAN MELIUS: I would just say that
5 I don't think we can evaluate it until we've seen
6 -- have more information to be able to evaluate.
7 So and I guess my concern is that it's going to be
8 hard to evaluate anything relative to construction
9 workers until we see this particular report. But
10 Andy, do you want to --

11 MEMBER ANDERSON: Yeah. Just to
12 question kind of the provenance of the 3,000 pages
13 of job plans.

14 Do we know or what, you know, what
15 proportion of jobs that construction workers would
16 have done are included here? Would these have been
17 special jobs that, you know, were larger or
18 smaller, and do we know that you can have -- I know
19 on construction sites you can have a plan.

20 But it's a broad plan. It isn't
21 derived every day, here's what you're going to do
22 today. It's here's the broad plan and a worker
23 might be on that plan but have been drawn off to

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1 work, go somewhere else. I mean do we know what
2 are the plans actually?

3 What proportion of the work that would
4 be done there by construction workers would be
5 covered? I mean would you expect an individual,
6 you can use these work plans to reconstruct all of
7 their work on the site as a construction worker?

8 DR. TAULBEE: The goal of the
9 evaluation of the job plans isn't to reconstruct
10 all of that worker's history. The job plans
11 themselves are task-specific, like we're going to
12 remove this duct work out of this particular room.

13 So the tasks will be -- kind of describe
14 the general task that's going to be conducted.
15 Then they'll talk about the monitoring, what kind
16 of PPE they're going to be wearing, whether
17 dosimetries, whether bioassay.

18 And then there's the list of the
19 construction trades workers, as well as some of the
20 operations folks that were involved in that task,
21 in that job. Now the operations folks, we know,
22 are on routine bioassay. The subcontractors
23 coming in are not.

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1 And so that's where we're going to be
2 taking those subcontractors and going to their
3 records, searching through our monitoring records
4 to see if they had the appropriate monitoring
5 following that job. That's the goal of these job
6 plans.

7 These job plans are not for the entire
8 site. This is for one area of 773(a), where the
9 thorium work was going on in this particular time
10 period, over the entire time period.

11 So we've got a complete set over a block
12 of time, and this should tell us whether these
13 workers, these subcontractors from working, you
14 know, at the 500 different companies that Brad is
15 mentioning, were actually in fact monitored as the
16 procedure said they would be or should be.

17 Now as Stu pointed out, if it comes out
18 that, you know, if we're not seeing the monitoring
19 for these workers and we're seeing the ones for the
20 operations, then we have an issue here. But this
21 is an issue that has been going along for a few
22 years, and we really didn't have a way of evaluating
23 how complete the construction trades worker

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1 bioassay and monitoring was.

2 When you have three or four thousand
3 bioassays for construction trades workers, is that
4 all of it? We have no way of knowing. But this
5 is a way we can evaluate the people who were doing
6 work in that building, where we do have
7 construction trades worker bioassay, whether or
8 not the people who were doing the specific tasks
9 actually have the data and it shows up. That's the
10 goal of this particular evaluation.

11 MEMBER CLAWSON: And let me add on to
12 this. From the Work Group standpoint, part of the
13 thing we've come to find out, and you've got to
14 understand where Savannah River is so unique.
15 Their operations personnel are non-union, but they
16 have what they call company construction workers,
17 which are trades unions, and then you've got your
18 construction workers.

19 It's very easy to get these two things
20 mixed up. So are these 3,000 going to cover the
21 construction workers for the company, or is -- I
22 guess I've got a two-pronged question here. What
23 years does this cover? Is this just going to cover

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1 the Savannah River Site construction workers?

2 DR. TAULBEE: Yes, just Savannah River
3 for one. Years are the late 70's, like 1978
4 through the 1980's, up to like 1989. There's a set
5 of job plans that we had, appear complete, so that
6 we've got, you know, the entire time period here
7 that we can do a sampling, a random sampling, to
8 do this evaluation in a statistical manner, to see
9 if these people were actually monitored as the site
10 procedures say that they were.

11 I just realized, Dr. Anderson, I didn't
12 answer one of your questions about what proportion.
13 We don't have a good feel of that right now until
14 we actually do the random sampling, because we do
15 see operations where it's a small task of, you know,
16 change an outlet or something like that, that
17 wasn't elevated to like a Davis-Bacon type of
18 level, where operations or building maintenance
19 took care of, and it wasn't subcontractors that
20 were brought in for it.

21 But it does appear that somewhere, and
22 this is just ballparking, 50 percent of them are
23 actual construction trades coming in. That's

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1 rough. So it's not all of the job plans, but most
2 of them, or not most, but a fraction.

3 MR. HINNEFELD: Tim, part of Brad's
4 question was do we expect there to be both like
5 DuPont construction trades workers and
6 subcontractor construction workers on these plans?

7 DR. TAULBEE: Absolutely, absolutely.
8 We have seen subcontractors coming in with
9 contractor names that I hadn't seen before, as well
10 as your typical B.F. Shaw type of workers and Dunn
11 Electric.

12 MR. HINNEFELD: Okay.

13 CHAIRMAN MELIUS: So Jim Lockey.

14 MEMBER LOCKEY: Just to refresh my
15 memory, is there any other similar data on other
16 sites on construction workers, similar to what you
17 may have here? Do you know?

18 MR. HINNEFELD: Oh boy. I can't think
19 of any instances where we did that. At Fernald,
20 we excluded -- we said that the construction
21 workers weren't covered by the coworker model up
22 through 1983 or '84 because they were not monitored
23 in the same fashion as the in-house workers, and

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1 that there's very little construction monitoring,
2 worker monitoring data up until about 1983.

3 So there was a decision made like that
4 that kind of separated them out at Fernald for some,
5 up until some point. But I don't know that we've
6 got any other place where we've got the extent of
7 the data that we have Savannah River like this.

8 CHAIRMAN MELIUS: I think we have a
9 petitioner on the line. I'd like to hear from the
10 petitioners.

11 MR. FESTER: Yes.

12 CHAIRMAN MELIUS: Yeah go -- I can hear
13 you now.

14 MR. FESTER: Yeah. I'm attorney Josh
15 Fester. I'm calling on behalf of Bob Warren, who
16 is the authorized representative for the
17 non-construction trade worker petitioners,
18 specifically [identifying information redacted].

19 His petition was consolidated with the
20 Gordon Rowe petition, one of three, and the Board
21 previously granted the original SRS/SEC petition
22 based on the presence of large quantities of
23 thorium at the site, for which there was no

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1 monitoring for employees.

2 CHAIRMAN MELIUS: Excuse me for one
3 second though. Is this what -- didn't you speak
4 last night?

5 MR. FESTER: I did.

6 CHAIRMAN MELIUS: Is this the same?

7 MR. FESTER: No, it's not.

8 CHAIRMAN MELIUS: Okay. Go ahead.

9 MR. KATZ: And Josh can you -- I don't
10 know whether you're speaking into a speaker phone
11 or whatever, but if you could talk very directly
12 into your phone, it would help us.

13 MR. FESTER: I'm not on a speaker.

14 MR. KATZ: Okay, thanks.

15 MR. FESTER: But excuse me. Bob
16 Warren has submitted new evidence within those
17 documents, those FOIA documents that I mentioned
18 last night, which demonstrates employee exposure
19 to thorium for workers at the SRS, which cannot be
20 accounted for.

21 We know based on these previously
22 secret documents, that several tons of thorium were
23 stored at the SRS throughout the 70's and 80's, and

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1 in 1998 several tons of thorium were logged as
2 missing in those documents.

3 Again, this was based on documents that
4 were marked secret and were in fact kept secret from
5 the petitioners until September of last year. All
6 the while for the last four years, NIOSH has had
7 access to these documents. Only now does NIOSH
8 want to begin to plan to investigate thorium
9 exposure at the SRS.

10 How many employees and their survivors
11 have died during that time? How many more will die
12 by the time NIOSH actually even attempts to
13 consider this exposure? I think someone had
14 mentioned earlier seven a month, and how many will
15 have to suffer, I guess, the indignity of having
16 had their spouse or child to provide home health
17 care that Congress has promised them?

18 More to the point, NIOSH's proposal
19 does not, cannot accurately estimate employee
20 exposure after 1972 because exposure data does not
21 exist, and that goes for construction trades and
22 non-construction trade workers.

23 In depositions taken of the persons

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1 designated most knowledgeable by the SRS about SRS
2 radiological health physics program, [identifying
3 information redacted], he stated that there was no
4 monitoring of thorium, at least until the
5 mid-2000's, and that a monitoring system didn't
6 exist until 2000. He's also said that -- I
7 mean that means that SRS only had a means of
8 monitoring for thorium a mere ten years ago, which
9 isn't to say that they were actually -- that
10 monitoring was actually performed.

11 NIOSH intends to -- it appears to use
12 fabricated air monitoring samples. By the way,
13 they only intended to do so after we exposed that
14 there was actually no monitoring for employees at
15 all. They intend to use these air monitoring
16 samples for people that they believe or are
17 reported to have been in the areas where thorium
18 was present.

19 What we know is that thorium was
20 processed in and out of the SRS over the course of
21 several years after 1972 and then that it was moved
22 from 300M areas and 700 areas. But how, when, by
23 what means and by who we don't know.

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1 We also know that personnel
2 recordkeeping at the SRS was inadequate for these
3 time periods, and frequently reported employees'
4 areas of potential exposures by labor categories
5 of where they were said to have been, which is
6 inadequate.

7 I mean I guess my question too is NIOSH
8 going to ask employees or claimants where employees
9 worked? Is that infeasible but also absurd? Many
10 have died since then, and you know, that would be
11 like asking me or better yet my wife or son 30 or
12 40 years from now names, the cases that I worked
13 on as an attorney way back in 2015. It's absurd
14 and unfeasible.

15 Not only is it unfair for NIOSH to have
16 waited this long to plan an investigation of
17 thorium exposure, and not only does it work a gross
18 injustice on the employees who put themselves in
19 harm's way for national security, it's illegal.

20 The law demands that if the data on
21 workers is not available, which we know that it
22 isn't in this case, the SEC is the remedy. I think
23 that's all I have gentlemen. Thank you.

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1 CHAIRMAN MELIUS: Thank you. Are
2 there any other petitioners on the line that wish
3 to speak?

4 MR. ROWE: Hello.

5 CHAIRMAN MELIUS: Hello.

6 MR. ROWE: My name is Gordon Rowe. Can
7 you hear me?

8 CHAIRMAN MELIUS: Yes we can, Mr. Rowe.

9 MR. ROWE: I was the original signer of
10 this petition. It has been drawn out. It has been
11 over ten years now, and there has been a tremendous
12 amount of information that are put off, put off,
13 and NIOSH is continually saying they need more
14 time, more information.

15 I feel that NIOSH is stalling. One
16 thing that I need to point out about thorium, it
17 was in the 700 area. It was in 773F in the lab area,
18 it was in 772F in the lab area in F area and 773A,
19 and it was also in 221F and 221H, which was the
20 separation building. It was in a lot of the 100
21 areas.

22 There's one thing that I would like to
23 point out. In a meeting in Augusta, Georgia, with

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1 NIOSH, it was pointed out, it was -- NIOSH was given
2 the information by a former project manager of the
3 Savannah River plant that records were falsified,
4 that monitoring records were falsified and he had
5 documented proof that they were falsified.

6 At that same meeting, there was another
7 superintendent pointed out that he could prove that
8 workers were falsified. On this alone, I think
9 that the petition should have been approved because
10 knowing what I do about Savannah River plant and
11 knowing that on lots of occasions, when people
12 worked overtime, they got another worker's badges
13 so that there would -- they would not show any
14 radiation for them, but so it would be on other
15 people that were not working, so that it would not
16 show on them because if you got too much radiation,
17 DOE would stop you from working overtime.

18 So there was a lot of falsifying going
19 on by construction workers as well as production
20 workers. Another thing that I would like to point
21 out, there were -- on numerous occasions, there was
22 construction workers loaned to operations. They
23 were still paid by the construction contractor

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1 Bechtel, but they were actually working for
2 production.

3 So when you try to evaluate production
4 workers alone, that can't be done because
5 production workers did operations work on many,
6 many occasions. I feel that there are -- NIOSH is
7 continually putting stumbling blocks, continuing,
8 they need more information, they need more
9 information.

10 Ten years is a tremendous long time that
11 this petition has been going on and on and on and
12 put off by various different circumstances,
13 various reasons, and I think that NIOSH needs to
14 go ahead and do away with the stumbling blocks, the
15 continuing process of trying to find this.

16 There are thousands of people that need
17 to be compensated that are sick, people -- some of
18 them are dead. Their survivors need to be
19 compensated for stuff that was done -- for things
20 that they received at Savannah River plant, and I
21 think that there is a continuing process of NIOSH
22 waiting to -- they continually file something to
23 continue this, because they are making money.

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1 If the petition is approved, it will put
2 out NIOSH, and these people, all they have to do
3 is prove 250 days working at Savannah River plant
4 for these 22 cancers that are on this petition, and
5 I think that they are -- what are they waiting on,
6 people to die so they won't have to pay, and NIOSH
7 has found the till, been putting money into the
8 till, of using money that was appropriated for
9 something else, so that the NIOSH budget will still
10 be intact.

11 I appreciate the opportunity of
12 speaking today, and I think that the Advisory Board
13 and NIOSH should look into the things that I have
14 said, because Savannah River plant has been
15 falsified. There are documented proofs where one
16 project manager, a site manager told a gentlemen
17 that they did not want stuff documented because it
18 would look bad on his shift.

19 The man was conscientious. He
20 documented anyway. Later on, when that person was
21 off work, his desk was broken into and his
22 documented records were stolen. So there are
23 various, any numbers of situations where records

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1 were falsified, records were stole, people
2 were -- and NIOSH has not looked into any of these
3 claims and I feel again on this -- for this reason
4 alone, this petition should be go ahead and
5 approved, and I think the Advisory Board needs to
6 look a lot into this and a lot into the information
7 that Bob Warren, the attorney, or [identifying
8 information redacted], which signed the petition
9 with me. I think that all of this needs to be
10 looked in with a microscope, to see why this
11 petition hasn't been approved.

12 If you have any questions, I would be
13 glad to answer any questions about what I've said,
14 and again, I thank you for the opportunity to speak
15 today.

16 CHAIRMAN MELIUS: We're running into
17 the next part of our schedule, but let me make
18 suggestion and then if there's further comments we
19 can't -- let me speak first, please. We're not
20 going to, you know, can't really have time or the
21 information to delve into all of the information
22 that's been presented here, and certainly the
23 questions about the construction worker database

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1 and other issues here.

2 So what I would suggest is we ask our
3 Work Group to meet. We haven't met for two and a
4 half, three years, and go through, clarify some of
5 this information and so forth, come back and report
6 to the Board at our next Board call and give us an
7 update on any suggestions on moving forward.

8 While I think it's -- the ten years is
9 a very serious delay, and I think we have to
10 confront that and deal with that. But I also think
11 we need to get, you know, let's look at the new
12 information that's appeared and at least have a
13 better sense of that, so the whole Board can
14 understand that. So does that make sense to
15 everybody?

16 MR. ROWE: Alright. There's one other
17 thing that I would like to point out if I may. Can
18 I do that?

19 CHAIRMAN MELIUS: Yeah, if it's quick.

20 MR. ROWE: Last month, which is in July
21 of 2016, there was beryllium processed in the 772F
22 area, lab and sent them to lab by new employees that
23 were not told the dangers of beryllium. All right,

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1 thank you.

2 CHAIRMAN MELIUS: Thank you. Okay.
3 So to Dave quickly.

4 MEMBER KOTELCHUCK: Yeah. Brad said
5 that this is a unique situation, and I'm wondering
6 and you've indicated this is really a long delay
7 in making a decision on the SEC. I would find it
8 very helpful if someone, either Stu or LaVon, would
9 actually give us a log of how long it has taken other
10 SECs.

11 That is, is this really off the charts
12 in terms of how rapidly we've been able to decide?
13 I know many SECs take a while. But I would find
14 that helpful.

15 CHAIRMAN MELIUS: I believe it's the
16 longest. I did ask for what other SECs had reserve
17 sections that we haven't looked at, and there may
18 be some that go on longer in terms of the residual
19 period. But I think LaVon had been trying to pull
20 some of that stuff together. But in terms of
21 operational, I believe it is.

22 MR. HINNEFELD: We can provide a report
23 to the Board before any other meetings occur, so

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1 that we can get a summary of that.

2 MEMBER KOTELCHUCK: Thank you.

3 MR. HINNEFELD: What you'll see on
4 many, on many SECs, including Savannah River, is
5 that there will be a portion of the petition dealt
6 with, and then, you know, and then remaining
7 consideration goes on and on.

8 That happens many times. And so, you
9 know, we can -- we can get a report for the ones
10 that are currently open, and also any that are
11 closed, although I suspect any that are closed, you
12 know, completely done would have been shorter than
13 ten years.

14 MEMBER KOTELCHUCK: That would be
15 helpful.

16 CHAIRMAN MELIUS: Jenny, you have
17 something to say.

18 MS. LIN: Just a point of clarification
19 for the record, is that the statutory deadline is
20 180 days for the Secretary to act on an SEC
21 petition, is the time line between when the
22 Secretary actually received the SEC petition to
23 when the NIOSH Director renders his recommendation

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1 to the Advisory Board, and the NIOSH has made that
2 recommendation to the Board back in 2008, I
3 believe.

4 And so this entire review process is
5 actually to assist the Advisory Board in rendering
6 its recommendation to the Secretary. While
7 timeliness is an important factor in this review
8 process, the Department has a responsibility to
9 provide dosing constrictions to workers who may not
10 be eligible for the SEC petition or SEC Class.

11 So I think the onus is still with the
12 Advisory Board to really clearly articulate which
13 dose cannot be reconstructed, so that the
14 Department can actually fulfill its
15 responsibilities to workers who are not, who may
16 not be eligible for the SEC Class, and that such
17 determination should be reflected in the record and
18 assigned to the evaluation.

19 (Off mic comments.)

20 CHAIRMAN MELIUS: Jim.

21 MEMBER LOCKEY: I guess one comment, it
22 would be helpful for me anyway to go back through
23 -- perhaps I should go back through the history of

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1 how we handled construction trades at other
2 facilities. I don't know.

3 That would that be useful just for
4 bringing us up to date as to -- as a general Class,
5 they would be difficult Class to do dose
6 reconstruction because of the nature of their jobs.
7 But I just don't recall how, in the years that I've
8 been on the Board.

9 CHAIRMAN MELIUS: Okay, yeah. Let's
10 look into it. It's changed over time. There's an
11 OTIB on it and there's serious questions on whether
12 that OTIB is -- how applicable it is at each site,
13 and then and so forth. And then there have been
14 a number of SECs that have included construction
15 workers, some that are -- sort of start with
16 construction workers, include everybody. It's a
17 complicated history, that's all.

18 MEMBER LOCKEY: That's right. I mean
19 that's --

20 CHAIRMAN MELIUS: Yeah, yeah, yeah.

21 MEMBER LOCKEY: It still is going to be
22 complicated, but I'd like to --

23 CHAIRMAN MELIUS: Yeah, no. I'm

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1 agreeing with the request. I'm just saying it's
2 my quick recollect is it's pretty complicated.

3 MEMBER LOCKEY: That's my recollection
4 too. But it would be nice to refresh my memory,
5 and that's what I'm asking about.

6 CHAIRMAN MELIUS: Any such way, I mean
7 you know, for example Fernald, where we've
8 discovered in the evaluation of the petition that,
9 you know, while they were actually starting
10 production they had construction going on in the
11 same building and --

12 MEMBER LOCKEY: Just by the nature of
13 the trade it's difficult.

14 CHAIRMAN MELIUS: Yeah, yeah.

15 MEMBER LOCKEY: It's hard to believe
16 they can do real good reconstruction on
17 construction workers in the same building.

18 CHAIRMAN MELIUS: Yeah, and Hanford,
19 where we recently discovered from the major
20 subcontractor there that they weren't monitoring
21 construction. That was the basis of the adding to
22 the SEC there, so yeah.

23 MEMBER CLAWSON: And Jim, I just --

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1 I'll tell you what my personal feeling is on these
2 3,000 pages. They're going to come to find out
3 that they're like a safe work permit that we used
4 at one of these other sites, and that it's for
5 job-specific. You go out and we're going to pull
6 this ducting out, and what you'll find out is these
7 are the people that started out on it.

8 More people can come, but the thing is
9 is all this does when it comes to the bioassay or
10 anything else like that, if you're a radiation
11 worker, you should be getting this bioassay and
12 this bioassay, and there's nothing to force to it.
13 It's just a paper to figure out -- it's just like
14 a job task.

15 CHAIRMAN MELIUS: I don't necessarily
16 disagree, but let's see what it is in that case.
17 Good. Thank you, Stu. Didn't mean to leave you
18 standing there all that time. Oh, yeah. The
19 other Jim.

20 MR. KATZ: Yeah, Jim. Not you.

21 **Bliss and Laughlin Steel SEC Petition**

22 DR. NETON: I'm here to talk about the
23 Bliss and Laughlin Steel Special Exposure Cohort

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1 petition number SEC 00230. A little bit of
2 background. Since we last dealt with Bliss and
3 Laughlin was in 2009, so some of you may have
4 forgotten what happened there.

5 It was a 129,000 square foot building
6 in Lackawanna, New York, which is near Buffalo, and
7 they machined uranium rods for the Atomic Energy
8 Commission in 1951 and 1952. It was a very limited
9 use facility. I think in April of 1951, one day
10 they machined 20 rods. In 1952 on three
11 additional, four additional occasions they
12 machined rods.

13 So there's five total days of machining
14 rods at this facility. So it's a very limited use
15 facility. All the work was done in a 3,230 foot
16 square special finishing area of the facility. So
17 that's about two and a half percent of the total
18 site, total facility was just this dedicated area
19 that machined these rods for the AEC.

20 Residual contamination was found at the
21 site when it was surveyed by ORISE in 1992. Only
22 found in this 3,230 square foot facility, nowhere
23 else onsite. They surveyed the other plants.

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1 Nothing was found there. So all the other
2 buildings were found to be uncontaminated.

3 Based on that survey, it was added to
4 the Formerly Utilized Site Remedial Action
5 Program, so-called FUSRAP, and it was again
6 surveyed in 1995 by FUSRAP, by Bechtel I believe
7 at that time, and some remediation work actually
8 took place between December 1998 and March 1999.
9 Those dates will become important as I talk about
10 things later.

11 As I mentioned, in 2009 a Special
12 Exposure Cohort petition was evaluated for this
13 facility, which included the operational period
14 between 1951 and '52, as well as the residual
15 period. At that time, it was defined as 1950
16 through 1998.

17 All workers of all operational residual
18 periods were evaluated, and the finding -- NIOSH's
19 finding was that we could estimate doses with
20 sufficient accuracy for those Classes of workers.
21 The Board at that time recommended, agreed with
22 NIOSH not to add the Class, and the Secretary of
23 HHS agreed and the Class was denied in June of 2011.

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1 However, since the original time period
2 since 2009, an additional piece of work was found
3 to have occurred, which was this remediation work
4 that started in December of 1998 and extended into
5 March of 1999. So the Board did not evaluate that
6 particular period. So we received this petition
7 230 in March of 2016 that asked for a Class to be
8 considered between January '51 and January 31st of
9 1999.

10 So because that little extra three
11 month period wasn't evaluated, we qualified the
12 petition, so that that three months' work could be
13 evaluated by the Board.

14 Just a brief slide here on the number
15 of claims. There's 54 total claims that have been
16 submitted at Bliss and Laughlin. We looked in our
17 database and ten of the workers actually had worked
18 in that 1999 time frame, 10 out of 54. So there are
19 some people that would be affected by this
20 decision, and nine dose reconstructions out of ten
21 have been done for those workers.

22 As expected, we no dosimetry or
23 bioassay data for anyone at this site. The

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1 remediation, as I mentioned, was performed by the
2 Army Corps of Engineers. So no Bliss and Laughlin
3 employees were involved in this remediation work
4 between December '98 and March 31st of 1999.

5 The work was specifically by
6 contractors scheduled on weekends. It started in
7 December 1998 and was finished on March 17th, '99,
8 and they only remediated the special finishing
9 area, that little 3,000 square foot area that we
10 talked about. That was the only area that was
11 found to be contaminated and the only area where
12 actual work was done for the AEC.

13 They had a fairly good air monitoring
14 program prior to, during and after the work
15 activities. They had samplers placed adjacent to
16 the finishing area, to determine if the remediation
17 activities were affecting the normal plant
18 operations. None was found, and there as a FUSRAP
19 closure report issued that stated that there were
20 no exposures detected for the plant workers.

21 There were three areas that were found
22 to be contaminated in that special finishing area.
23 There were trusses, the floor and some trenches in

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1 that area. The first remediation activity was
2 fairly short. It was a weekend in December, where
3 they decontaminated the overhead trusses.

4 They were HEPA-vacuumed and wiped with
5 masslinn cloth, and the contamination survey was
6 conducted in March of '99. The floor and finishing
7 area, the remediation work took place on the
8 weekend of January 9th and 10th, 1999. All the
9 work was conducted inside a HEPA filtration
10 enclosure. There was some scaffolding work with
11 a HEPA vacuum attached to remove dust and debris.

12 The area was resurveyed again in March
13 of '99. Additional sampling for areas adjacent to
14 the trench was conducted. These trenches were
15 also found to be contaminated. They were like
16 utility runs, sort of conduits and stuff in there.
17 That took the longest period. That began in
18 January of '99 and was completed in March of '99.

19 Again, this work, like the other work,
20 was performed inside an enclosure with HEPA
21 filtration, where scaffolding and jackhammering
22 occurred. Confirmation surveys again in March '99
23 found no residual contamination. Those trenches

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1 were actually filled with concrete.

2 The total remediation activity in this
3 three month period generated about 60 cubic yards
4 of what they called presumed contamination
5 material, and that was shipped offsite for burial.

6 So based on the information that we've
7 looked at, the fact of the covered employee, the
8 Bliss and Laughlin employees, were not present
9 during remediation.

10 The operations were conducted with HEPA
11 filtration, and the air sampling was performed to
12 look at the boundary areas, to ensure the
13 contamination didn't spread to the plant. We
14 conclude that the exposures for this period would
15 not be any higher than that previously evaluated
16 by the Board in the residual period that at that
17 time extended through 1998.

18 We're suggesting that there's no
19 indication that that three month period in '99
20 would be reconstructed any differently than what
21 we've already evaluated in '98. So we believe the
22 dose reconstruction is feasible for this extended
23 period, extension of the time period.

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1 The bounding methods that we propose to
2 use here are based on a well-known document, the
3 TBD-6000, that we use to demonstrate how we could
4 do exposures in this area.

5 Based on the highest alpha removal
6 contamination of 430 dpm per 100 square
7 centimeters, we derived a, using TDB-6000 and
8 TIB-70, as we talked about in the last Evaluation
9 Report of SEC 131, we came out with an estimate
10 intake of -- that we could estimate intakes of
11 inhalation during that time period.

12 So again, given that the way we -- this
13 describes how we're going to do it in the last
14 residual contamination period, we're going to use
15 the same approach. TIB-70, we used TBD-6000 to
16 establish what the residual contamination was at
17 the start of the residual period and decay it down.
18 They took the FUSRAP sample in 1992, the 430 dpm
19 alpha for 100 square centimeters. That's what
20 we'll use to determine.

21 This sort of rehashes what I just said.
22 For internal exposures, we'll assume the entire
23 area was contaminated with 430 dpm for 100 square

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1 centimeters alpha. We used a one times 10 to the
2 minus 6 resuspension factor, eight man hours per
3 day for 365 days per year.

4 That results in an inhalation of about
5 .3 dpm per day that will be ascribed for that
6 period. For the external exposures, we intend to
7 extend the TBD method, although I have to say in
8 reviewing these slides, there's a little bit of a
9 disconnect here.

10 This talks about using the 430 dpm loose
11 alpha contamination. That's appropriate for
12 inhalation exposure, but you can't really use the
13 loose alpha to estimate the external exposures,
14 because there was some measured beta-gamma survey
15 on the ground that's higher than that 430.

16 That's what should be used. We have
17 those 18 measurements that were taken in that area,
18 and that's what we'll end up using, not this 430
19 dpm.

20 But again, just like before we have used
21 the TIB-70 approach, starting with the highest
22 concentration at the start of the residual
23 contamination period and exponentially declining

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1 it down to what was measured in 1992 in the
2 beta-gamma surveys.

3 So I just want to point out, we wouldn't
4 use that 430 dpm. We would use the measured
5 beta-gamma survey data.

6 The photon exposures, this is sort of
7 getting into the weeds a little bit, but we would
8 partition the exposures into the three energy bins
9 that are required in IREP, to apply the appropriate
10 radiation factors based on the energy spectra that
11 is at the site.

12 So in summary, we believe this is our
13 standard slide, that we can reconstruct doses for
14 -- internal doses for uranium exposures, external
15 doses, both the beta and gamma components.
16 Neutron exposures are not applicable here, and
17 occupational medical X-rays are not applicable
18 during the residual period. So we wouldn't
19 evaluate those as well.

20 So that's that in a nutshell. That
21 completes my presentation.

22 CHAIRMAN MELIUS: Okay, thank you Jim.
23 Any questions? Yeah, Bill.

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1 MEMBER FIELD: Jim, it said that, I
2 think it was your second slide, no plant workers
3 were exposed?

4 DR. NETON: Well, no plant workers --

5 MEMBER FIELD: I just want to clarify
6 that. That's for the remediation?

7 DR. NETON: Yes.

8 MEMBER FIELD: That was based on the
9 measurements they performed?

10 DR. NETON: Yes. Specifically during
11 the three month remediation period, from January
12 to March, they were not involved in it and they
13 weren't exposed.

14 CHAIRMAN MELIUS: Other questions from
15 Board Members? Do we have the petitioner?

16 Board Members on the phone have any
17 questions?

18 MEMBER ZIEMER: No questions from
19 Ziemer.

20 CHAIRMAN MELIUS: Okay, thank you
21 Paul. Dr. Poston, are you on?

22 (No response.)

23 CHAIRMAN MELIUS: Okay, no questions.

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1 Now do we have a petitioner on the line that wishes
2 to speak? I hear background. I don't hear any.
3 Okay. Assuming no petitioner might want to speak,
4 so I think we need to consider a motion from the
5 Board.

6 (Off the record comments)

7 CHAIRMAN MELIUS: Okay.

8 MEMBER ZIEMER: Jim, there seems to be
9 someone on the phone trying to talk. I don't know
10 who it is.

11 CHAIRMAN MELIUS: Is somebody on the
12 line that wishes to speak regarding Bliss and
13 Laughlin?

14 MR. KATZ: I don't think so.

15 CHAIRMAN MELIUS: No, I don't think so
16 either. Okay.

17 MEMBER MUNN: Yes. We have the
18 recommendation from NIOSH.

19 CHAIRMAN MELIUS: We have a
20 recommendation from NIOSH.

21 MEMBER MUNN: I move that we accept
22 that recommendation.

23 MEMBER FIELD: Second.

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1 CHAIRMAN MELIUS: Any further
2 discussion?

3 (No response.)

4 CHAIRMAN MELIUS: So the motion with
5 the recommendations from NIOSH is that dose
6 reconstructions are feasible for all Atomic
7 Weapons Employees who worked in any area of Bliss
8 and Laughlin Steel of Buffalo, New York from
9 January 1st, 1999 through December 31st, 1999, for
10 this specific petition. So no further questions.
11 Ted, do you want to do a roll call?

12 MR. KATZ: Yes. So some of our Board
13 Members are either in transit or supposed to join
14 by phone. I'm hoping they did so, because we need
15 a quorum. So let me start, do it alphabetically
16 and then I'll come back around. Anderson.

17 (No response.)

18 MR. KATZ: Beach.

19 MEMBER BEACH: Yes.

20 MR. KATZ: Mr. Clawson.

21 MEMBER CLAWSON: Yes.

22 MR. KATZ: Field.

23 MEMBER FIELD: Yes.

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1 MR. KATZ: Kotelchuck.

2 MEMBER KOTELCHUCK: Yes.

3 MR. KATZ: And Dr. Lemon's absent. I
4 will collect his vote after this meeting. Dr.
5 Lockey?

6 MEMBER LOCKEY: Yes.

7 MR. KATZ: Dr. Melius.

8 CHAIRMAN MELIUS: Let me sit down.
9 Yes.

10 MR. KATZ: Thank you. Ms. Munn.

11 MEMBER MUNN: Yes.

12 MR. KATZ: Dr. Poston? He was on the
13 line. Dr. Poston?

14 (No response.)

15 MR. KATZ: Dr. Richardson's absent.
16 I'll collect his vote afterwards. Dr. Roessler?

17 MEMBER ROESSLER: Yes.

18 MR. KATZ: And then I don't believe --
19 oh wait. Mr. Schofield. He's with -- he should
20 be on the line too.

21 (No response.)

22 MR. KATZ: Loretta Valerio, did you
23 join us?

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1 (No response.)

2 MR. KATZ: And Dr. Ziemer?

3 MEMBER ZIEMER: Yes.

4 MR. KATZ: Okay. We have a problem
5 here, because we do not have a quorum.

6 CHAIRMAN MELIUS: So if we have a vote
7 at our next Board meeting?

8 MR. KATZ: Yes.

9 CHAIRMAN MELIUS: We have a quorum on
10 the call.

11 MR. KATZ: On the call. We can do it
12 on the call, but we can't handle this now.

13 CHAIRMAN MELIUS: Okay.

14 **Adjourn**

15 MR. KATZ: And we actually have to
16 adjourn without a quorum, although we're done with
17 our agenda.

18 CHAIRMAN MELIUS: Correct. We're
19 going to adjourn anyway.

20 MR. KATZ: Yes.

21 CHAIRMAN MELIUS: Thank you all, and
22 we'll see you in our conference call and then maybe
23 Los Alamos, Albuquerque, Santa Fe?

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1 (Whereupon, the above-entitled matter
2 went off the record at 12:04 p.m.)
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