

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

+ + + + +

65TH MEETING

+ + + + +

WEDNESDAY
OCTOBER 21, 2009

+ + + + +

The meeting convened in the Conference Room of the Danford's Hotel and Marina, 25 East Broadway, Port Jefferson, New York, at 9:00 a.m., Paul L. Ziemer, Chairman, presiding.

PRESENT:

PAUL L. ZIEMER, Chairman
JOSIE BEACH, Member
BRADLEY P. CLAWSON, Member
MICHAEL H. GIBSON, Member
MARK GRIFFON, Member
JAMES E. LOCKEY, Member
JAMES MALCOLM MELIUS, Member
WANDA I. MUNN, Member
JOHN W. POSTON, Member
ROBERT W. PRESLEY, Member
GENEVIEVE S. ROESSLER, Member

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PRESENT (CONTINUED):

PHILLIP SCHOFIELD, Member
 THEODORE M. KATZ, Designated Federal Official

REGISTERED AND/OR PUBLIC COMMENT PARTICIPANTS:

ADAMS, NANCY, NIOSH Contractor
 AL-NABULSI, ISAF, DOE
 AQUINO, LITA, NIOSH
 BONSIGNORE, ANTOINETTE, Petitioner
 BRADFORD, SHANNON, NIOSH
 BREYER, LAURIE, NIOSH
 BROEHM, JASON, CDC
 CIVILETTO, SAM, Petitioner
 CRAWFORD, CHRIS, NIOSH
 CUMMING, SARA, Petitioner
 DECKER, RICHARD, Petitioner
 ELLIOTT, LARRY, NIOSH
 FITZGERALD, JOHN, SC&A
 GLOVER, SAM, NIOSH
 HINNEFELD, STUART, NIOSH
 HOWELL, EMILY, HHS
 HUGHES, LARA, NIOSH
 KESTEN, DOROTHY, Petitioner
 KOTSCH, JEFF, DOL
 MAURO, JOHN, SC&A
 McFEE, MATTHEW, ORAU
 MCGOLERICK, ROBERT, HHS
 McINTOSH, CHRIS (name not legible)
 NELSON, CHARLES, NIOSH
 NETON, JIM, NIOSH
 PRESLEY, LOUISE S.
 RAINAGE, BOB, Claimant
 RUTHERFORD, LaVON, NIOSH
 SARMADAK, LORETTA, Petitioner
 STEFKO, LINDA, Petitioner
 WARREN, BOB, Petitioner
 WOJCIK, MARGARET, Petitioner

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TABLE OF CONTENTS

AGENDA ITEM	PAGE
Welcome	4
Oak Ridge Hospital SEC Petition Dr. James Lockey, Member, Petitioner(s)	6
Bliss & Laughlin Steel Facility SEC Petition Dr. Samuel Glover, NIOSH, Petitioner(s)	40
Piqua Organic Moderated Reactor SEC Petition Mr. Charles Nelson, NIOSH, Petitioner(s)	96
Metals and Controls Corp. SEC Petition (83.14) Dr. James Neton, NIOSH, Petitioner(s)	170
Electro Metallurgical Co. SEC Petition Mr. Chris Crawford, NIOSH, Petitioner(s)	210
University of Rochester Atomic Energy Project SEC Petition Dr. Lara Hughes, NIOSH, Petitioner(s)	240
SEC Petition Status Update Mr. Lavon Rutherford, NIOSH	281
Public Comment	295
Adjourn	

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

2 9:10 a.m.

3 CHAIRMAN ZIEMER: Good morning,
4 everyone. We are going to begin our second
5 day of deliberations for the Advisory Board on
6 Radiation and Worker Health meeting here in
7 Port Jefferson, New York.

8 I will begin with my usual reminder
9 to sign the attendance ledger that is in the
10 foyer, if you haven't already done so, so that
11 we have a record of your attendance with us
12 today. Also a reminder that there are
13 documents and agendas on the back table that
14 relate to the items on today's agenda as well.

15 We have a number of SEC petitions
16 that we will be dealing with throughout the
17 day today. To the extent possible, we want
18 these to be time certain in order to
19 accommodate some of the petitioners who may be
20 with us by phone. So we will do our best to
21 stick to the schedule as it is given in the
22 agenda.

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1 Mr. Katz, our Designated Federal
2 Official, again is with us, and, Ted, we will
3 ask you if you have any preliminary comments.

4 MR. KATZ: No comments, just
5 guidance for the people on the phone to mute
6 your phones, please, except when you are
7 addressing the Board. Use *6 if you don't
8 have a mute button, *6 again to take it off
9 mute and, if you leave the phone, just hang up
10 and dial back in. Please don't use your hold.
11 That's it. Thank you.

12 CHAIRMAN ZIEMER: Thank you very
13 much. We are going to begin today with the
14 Oak Ridge Hospital SEC Petition. Board
15 members, I will remind you that we did have
16 the presentation on this petition at our last
17 meeting, and I believe Dr. Hughes presented
18 that, and I think Dr. Hughes is here today.
19 Yes, she is. So she is available to answer
20 questions as well.

21 We have already had the
22 presentation on the petition, and at our last

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1 meeting the Board had raised some questions
2 dealing largely with the accessibility of the
3 hospital facilities to individuals who would
4 not otherwise be thought of as radiation
5 workers.

6 So we did set up a Work Group
7 chaired by Dr. Lockey to examine that issue
8 and any others that they thought were
9 appropriate. So Dr. Lockey, the Work Group
10 Chair, is going to relate to us what the Work
11 Group found and what their recommendation is.

12 We will also have an opportunity to hear from
13 the petitioner by phone and an opportunity for
14 questions before we take further action.

15 So, Dr. Lockey.

16 MEMBER LOCKEY: I think I will do
17 this from here. Is that all right?

18 CHAIRMAN ZIEMER: That's fine.

19 MEMBER LOCKEY: I want to thank
20 members of the Work Group. We met in person
21 on October 7th and then had a conference call
22 on October 12th, and I also want to thank

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1 Lara. She did a great job on this, and it was
2 very helpful in both these sessions.

3 The Work Group did a lot of the
4 work on our own. We contacted people and did
5 a lot of research ourselves. So I think we
6 can bring this to a close, hopefully, today.

7 The original petition -- this is
8 just for everybody so we are on the same
9 playing field. The original petitioner -- the
10 cohort was defined as all employees from
11 [identifying information redacted], 1958 to
12 [identifying information redacted] of 1959.

13 This was expanded. NIOSH expanded
14 the class definition to include all employees
15 who worked in any location at Oak Ridge
16 Hospital from May 15, 1950, to December 31,
17 1959.

18 A little bit of history. There was
19 an SEC granted for the Oak Ridge Institute for
20 Nuclear Studies known as ORINS Cancer Research
21 Hospital, and that was granted for those who
22 were employed from May 15, 1950, to December

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1 31, 1963, and that is important because the
2 ORINS Cancer Research Hospital was closely
3 affiliated with Oak Ridge Hospital, both from
4 an employment perspective and also a physical
5 perspective.

6 So Oak Ridge Hospital. It was
7 closely affiliated with ORINS Cancer Research
8 Hospital. This latter facility was very
9 unique in that it really was a pioneer in
10 research in the areas of radioisotope
11 treatment for various types of cancer. So it
12 is really a pioneering institute that was
13 affiliated with Oak Ridge Hospital in their
14 early years.

15 Additional information that we --
16 we actually reviewed quite a bit of additional
17 information, but I think the pertinent points
18 were these. The article that was published by
19 Dr. Brucer entitled Radioisotopes Hazards and
20 Protection in a Hospital -- this was in JAMA -
21 - in 1951, and it was a very interesting read.

22 We pulled the article, distributed

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1 it. Everybody reviewed the article, and it
2 really indicated that Dr. Brucer was really on
3 the forefront of looking at how to protect
4 personnel in regard to radioisotope use in a
5 hospital setting, quite a pioneer in the area,
6 and the paper was an excellent paper.

7 I think John pulled a section from
8 a textbook called Chronology of Nuclear
9 Medicine, again partly authored by Dr. Brucer.

10 It sort of added to that history of what was
11 going on during that time frame.

12 Additional contacts were made with
13 various individuals, and, in particular, Roger
14 Cloutier actually participated in a conference
15 call with us on our second meeting at length,
16 and we all had the opportunity to ask him
17 various questions about his experiences,
18 particularly with ORINS or the Cancer Research
19 Hospital, and what he knew or did not know
20 about the Oak Ridge Hospital and possible
21 interaction both from a physical perspective
22 as well as a staffing perspective between the

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1 two facilities.

2 Bob, I think, looked up this for
3 us, and if you look at this -- I don't know if
4 there is a pointer here or not; is there a
5 pointer?

6 This is Oak Ridge Hospital, and
7 those who are in the know, correct me if I am
8 wrong here.

9 CHAIRMAN ZIEMER: You may need to
10 stay on the mic, Jim.

11 MEMBER LOCKEY: This is Oak Ridge
12 Hospital right here, and this is the E Wing,
13 which is the original wing involved with the
14 Cancer Research Center, and this was later the
15 D Wing which also became part of it.

16 Apparently, there is a --
17 initially, a connection between these two
18 facilities was just a walkway, which was later
19 covered. Then you can see there is a
20 connection here, which is a walkway which has
21 been covered. So this was originally the
22 original research center, and they expanded to

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1 the D Wing. This was E. This was the D Wing,
2 and this is the main hospital.

3 I think I got that right. Where is
4 Bob?

5 MEMBER PRESLEY: You are correct.

6 MEMBER LOCKEY: So what we learned
7 was there was really considerable attention
8 that was given to radiation safety based on
9 ORINS activity. So it wasn't as if they
10 weren't paying attention to what was going on
11 in relationship to radioisotopes. But there
12 was a definite opportunity for cross-staffing
13 between the Oak Ridge Hospital and ORINS, and
14 this cross-staffing existed for positions
15 sometimes if they had to respond to emergency
16 situations in the research center, sometimes
17 positions would cross-cover. Same with
18 nursing personnel, same with morgue and
19 pathology personnel, operating personnel at
20 least into 1955.

21 All the surgery took place at Oak
22 Ridge Hospital for ORINS patients, at least,

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1 I think, until 1955, and then also diagnostic
2 and therapeutic radiology. It wasn't clear
3 when ORINS got their own diagnostic radiology
4 facility, but initially the X-rays were taken
5 in Oak Ridge Hospital.

6 So there was cross-staffing and
7 cross-patient flow between the two facilities,
8 and we don't know how much. We don't know who
9 went back and forth. It is impossible. The
10 data does not exist for us to identify who
11 only worked in Oak Ridge Hospital or in ORINS
12 or if they only worked in Oak Ridge Hospital
13 and never had an exposure to an ORINS patient.
14 We just don't know that.

15 So because of the lack of internal
16 and external dosimetry records for Oak Ridge
17 Hospital personnel and the potential for
18 cross-staffing and cross-patient care activity
19 with ORINS, the Working Group concurred with
20 NIOSH that it was not feasible to do dose
21 reconstruction. We really could not set an
22 upper limit.

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1 So if you can't set an upper limit,
2 you can't do dose reconstruction. We don't
3 necessarily think that there was a health
4 threat, but because we could not set an upper
5 limit, we went back and agreed with NIOSH's
6 position here.

7 Therefore, this class of employees
8 should be considered by the Board for
9 recommendation for addition to the special
10 exposure cohort, and that was a unanimous vote
11 by us.

12 We did revise the proposed class,
13 and we revised it as follows. We said that
14 all employees of the Department of Energy, its
15 predecessor agencies, and contractors and
16 subcontractors who worked at any location of
17 the Oak Ridge Hospital, Oak Ridge, Tennessee,
18 from May 15, 1950 through the 31st of '59 for
19 a number of work days aggregating at least 250
20 work days occurring either solely under this
21 employment or in combination with work days
22 within the parameters established for one or

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1 more classes of employees be included in the
2 special exposure cohort.

3 We could not positively identify --
4 we couldn't limit the class. There is not
5 enough information to limit the class. So it
6 had to be an all-inclusive class. Again, this
7 was a unanimous vote.

8 CHAIRMAN ZIEMER: So, Dr. Lockey,
9 I am going to interpret that as a
10 recommendation from the Work Group. As such,
11 it becomes a motion on the floor before us.
12 It does not require a second. So we will now
13 discuss it. So the motion would be to add a
14 class to the SEC.

15 Let me ask a question for
16 clarification. You made a statement to the
17 effect that the Work Group did not feel that
18 health was affected.

19 MEMBER LOCKEY: That is correct.

20 CHAIRMAN ZIEMER: But let me also
21 remind us all that in order to make a
22 recommendation for a special exposure cohort

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1 class, we also have a second stipulation, and
2 that is the stipulation that health was
3 affected, usually measured in terms of the 250
4 day criteria.

5 I notice in your recommendation you
6 do specify the 250 day criteria. So although
7 I guess your earlier statement perhaps was
8 more intuitive than anything, I think this
9 statement, in and of itself, implies that
10 health -- the assumption is that health was
11 affected due to chronic exposure.

12 MEMBER LOCKEY: That is correct.

13 CHAIRMAN ZIEMER: You agree that
14 that is --

15 MEMBER LOCKEY: That is correct.
16 You are unable to bound an upper limit and,
17 therefore, there is -- by default, there is a
18 health endangerment.

19 CHAIRMAN ZIEMER: Yes, that is
20 exactly right. I just wanted to confirm that
21 you were not in the motion separating out
22 health endangerment because that is part and

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1 parcel to the requirement for adding a class.

2 Robert Presley.

3 MEMBER PRESLEY: First, I want
4 everybody to know I voted for this with a
5 whole lot of reservation. We are going to
6 vote -- we voted to give everybody that worked
7 at Oak Ridge Hospital from May 15th to
8 December 31, 1959 special exposure cohort
9 status.

10 What that is going to mean is that
11 if you had a nurse that worked in pediatrics,
12 never, ever got anywhere else in that hospital
13 but that pediatrics ward, but she does have
14 one of the 22 types of cancer, then she is
15 eligible.

16 That bothers me because we've got
17 people at other places that we can't get paid
18 that we know came into more contact with
19 hazardous radiation than people might have
20 there. It's just the way the bill is written.

21 I'm sorry. I do have a problem
22 with it. I think it needs to be changed.

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1 CHAIRMAN ZIEMER: Thank you. And,
2 certainly, we have this kind of situation in
3 other facilities where we are not able to
4 identify exactly where people went or didn't
5 go. So we do have to operate under the
6 assumption that, if they had access, they
7 could have been there.

8 So part of that is erring on the
9 side of claimant favorability, and that is
10 part of our job, to make sure that that does
11 occur.

12 Further comments? Mark?

13 MEMBER GRIFFON: I was just looking
14 for those documents you mentioned, Jim. Are
15 those -- maybe NIOSH knows this, too. I don't
16 see them on our O: drive or --

17 CHAIRMAN ZIEMER: These are the
18 documents by Marshall Brucer?

19 MEMBER GRIFFON: Yes. They are not
20 there. They were circulated otherwise?

21 CHAIRMAN ZIEMER: These are
22 documents that the Work Group developed?

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1 MEMBER GRIFFON: I don't see a
2 folder in the A-B document review section.

3 CHAIRMAN ZIEMER: Okay, LaVon
4 Rutherford is going to speak to this. LaVon?

5 MEMBER GRIFFON: It might be in the
6 site research database, but I don't see it.
7 Oh, it's in here.

8 MR. RUTHERFORD: It should be under
9 the A-B document review folder. There should
10 be an Oak Ridge Hospital.

11 MEMBER GRIFFON: I am assuming
12 these are alphabetical.

13 MR. RUTHERFORD: Yes, they are.

14 MEMBER GRIFFON: I don't see it.

15 MR. RUTHERFORD: Now we did
16 transfer folders recently from -- we did
17 transfer folders recently from the drives when
18 we switched you guys over. I am not sure if
19 Oak Ridge Hospital was missed there.

20 MEMBER GRIFFON: It appears that it
21 is not in the -- I mean, we can track it down.
22 I guess what struck me was, Jim, in your

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1 presentation you said that those documents
2 were enlightening because they showed how he
3 was on the forefront of establishing
4 protection for this type of hospital and
5 facility, and I think this goes back to some
6 other comments earlier that -- I think Jim
7 might have made this comment -- that if you
8 have these two articles that support that
9 there were good controls, that kind of
10 questions can't we do something with job
11 titles or what. But you are saying you guys
12 looked at this, and they migrated -- it's
13 impossible to track, yes.

14 MEMBER LOCKEY: There is no way to
15 go back and say who had access or did not have
16 access to patients, to tissue, to emergency
17 situations or who was going back and forth
18 between the two facilities.

19 MEMBER GRIFFON: So, really, they
20 didn't have any sort of access control to that
21 one side of the hospital in terms of like who
22 could --

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1 MEMBER LOCKEY: There was some
2 control, and there was some control to patient
3 access, but it doesn't talk about who had
4 access to the patients. It doesn't talk about
5 what happens with the custodial personnel,
6 necessarily. There was some cross in
7 relationship to food distribution. Some of
8 the food utensils were washed back at Oak
9 Ridge Hospital.

10 So it would be very difficult to
11 delineate who had a potential exposure and who
12 did not.

13 MEMBER GRIFFON: Thank you.

14 CHAIRMAN ZIEMER: I believe also --
15 and, Dr. Hughes, you may want to help us on
16 this, but my memory was that you cited Dr.
17 Brucer also, and there was some indication
18 that they were finding high exposures actually
19 outside the building, in the sidewalks around
20 the streets even.

21 DR. HUGHES: Yes, that is correct.
22 Actually, a large part of this article by

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1 Brucer was cited in the evaluation report. So
2 some of the relevant tables were actually
3 adapted. The important information is
4 actually in the evaluation report. But, yes,
5 this article actually talks about several
6 incidents where they detected gamma radiation
7 fields outside on the sidewalk.

8 Now this was for the ORINS
9 facility, but it was right next to the Oak
10 Ridge Hospital, and I think also a major point
11 that Dr. Brucer made was that even in the
12 ORINS facility, even the administrative
13 personnel received non-zero doses.

14 So it is conceivable that anybody
15 who entered the ORINS building might have been
16 receiving an exposure.

17 CHAIRMAN ZIEMER: Thank you. Dr.
18 Roessler.

19 MEMBER ROESSLER: Just to add a
20 little bit to Mark's question, in talking with
21 Roger Cloutier who didn't begin work there
22 until 1959, we couldn't get information from

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1 him about the early time periods.

2 The only thing we got from him is,
3 again, the support and indication that Dr.
4 Brucer was a very careful person with regard
5 to health hazards, extremely so at that time.

6 He was very protective of pregnant women.

7 There is every indication in
8 everything we found, including the report Dr.
9 Lockey mentioned, to show that there were very
10 good health physics practices. However, the
11 dilemma is we can't show that certain people
12 did not have access to this area.

13 CHAIRMAN ZIEMER: Yes, Dr. Melius?

14 MEMBER MELIUS: Just to follow up
15 on this and Mr. Presley's point earlier, in
16 some of our discussion yesterday, I just think
17 it is important. I first reviewed this report
18 when it was sent to us, the original one.

19 I think there are -- we need to
20 make sure we have good documentation that
21 people -- not were exposed, but that we have
22 made a good effort to try to see if we can

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1 delineate between groups and, if we can't,
2 then that is fine. We can have a broad
3 definition, but I think it is sort of having -
4 - going through and trying to document that
5 and putting in the evaluation report. I'm not
6 quite sure how you can do it with the reports,
7 but I think the more documentation you include
8 there that you have made the effort to try to
9 separate out different groups, I think it
10 would be helpful.

11 CHAIRMAN ZIEMER: Thank you. I
12 have just been asked to remind you all that
13 the people on the phone are having a hard time
14 hearing some of you. So please, when you
15 speak, speak into the mics as much as
16 possible.

17 Okay, any further discussion or
18 questions? We have Phil Schofield. Phil, get
19 up there close to your mic.

20 MEMBER SCHOFIELD: In this
21 particular case, John, Gen, Bob -- they all, I
22 think, went the extra mile, tried to interview

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1 people, looked at documents they were aware
2 of, and when it came down to it, their
3 documentation just doesn't exist.

4 I will agree that for the majority
5 of the people, the risk was very low, but
6 there is no way of determining which those
7 people were and which were not in this case.
8 The record keeping just isn't there.

9 CHAIRMAN ZIEMER: Thank you. Any
10 further comments or questions? Also, let me
11 just see if the petitioner is on the line and
12 if the petitioner wishes to make any comments.

13 MS. CUMMING: This is Sara Cumming,
14 and I agree with the recommendation from the
15 Work Group. I am having a hard time hearing
16 everyone. Can you hear me okay?

17 CHAIRMAN ZIEMER: Yes, Sara, we can
18 hear you quite well. So we would be pleased
19 to have you make any additional comments that
20 you wish to make.

21 MS. CUMMING: I would just like to
22 say that I certainly agree with the petition.

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1 The close affiliation with ORINS Cancer
2 Research building and of this hospital clearly
3 provided a potential for radioactive exposure
4 for the hospital staff.

5 Oak Ridge Hospital employees
6 supported ORINS by working back and forth from
7 both areas, and I certainly agree with the
8 petition, on behalf of my mother and other Oak
9 Ridge Hospital colleagues who also died of
10 cancer, but I am certainly in agreement with
11 the recommendation from the Work Group.

12 CHAIRMAN ZIEMER: Sara, thank you
13 very much for those comments. LaVon
14 Rutherford has an additional comment.

15 MR. RUTHERFORD: I just wanted to
16 let the Board know that folder is there now.
17 Staff has found it.

18 CHAIRMAN ZIEMER: Okay. The Oak
19 Ridge Hospital folder is in our information
20 drive on our computers. Okay. Thank you. So
21 you can check Dr. Brucer's articles there, if
22 you want to pursue that.

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1 Again, my understanding is Brucer
2 talked in general health physics terms, but
3 doesn't speak to identifying specific
4 individuals, and apparently does not talk
5 about restricting specific groups, as I
6 understand it, in any way, for example, saying
7 that certain parts of the hospital were
8 restricted only to people in certain job
9 categories, nothing like that.

10 MEMBER LOCKEY: That is correct.

11 CHAIRMAN ZIEMER: Josie Beach?

12 MEMBER BEACH: The last time we
13 spoke, we talked quite a bit about the
14 laundry. Was laundry done on site? Do you
15 guys remember, or did you discuss that at all?

16 MEMBER LOCKEY: Laundry was done
17 separately.

18 MEMBER BEACH: But was it done at
19 the hospital or was it taken off?

20 CHAIRMAN ZIEMER: Dr. Hughes, maybe
21 you can clarify that for us.

22 DR. HUGHES: I don't really know

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1 how they did the laundry. They either
2 contracted with an outside provider or they
3 did it on site. I think it actually changed
4 over the covered period, but what I do know is
5 it was separate from ORINS. ORINS sent their
6 laundry to ORNL for radiation checking and
7 then washing. So they were separate. ORINS
8 realized they might have a problem with
9 contaminated laundry versus the Oak Ridge
10 Hospital did not -- I believe they did not
11 think that they would have a problem with
12 contaminated laundry. So they were clearly
13 separate.

14 CHAIRMAN ZIEMER: So the ORINS
15 laundry went to X-10, which is Oak Ridge
16 National Lab? You said ORNL?

17 DR. HUGHES: Yes, that is correct.

18 CHAIRMAN ZIEMER: So their laundry
19 went to ORNL, but the hospital, Oak Ridge
20 Hospital, laundry went somewhere else. Is
21 that what I understood you to say?

22 DR. HUGHES: Yes, that is correct.

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1 CHAIRMAN ZIEMER: But the
2 possibility was that the Oak Ridge Hospital
3 laundry might have been contaminated -- we
4 don't know that, I guess -- and gone
5 elsewhere.

6 DR. HUGHES: I believe they
7 certainly didn't think that it was
8 contaminated.

9 CHAIRMAN ZIEMER: Dr. Lockey?

10 MEMBER LOCKEY: The question would
11 come up, if somebody needed surgery and was
12 taken to Oak Ridge Hospital, how was that
13 handled?

14 CHAIRMAN ZIEMER: Where did their
15 laundry go?

16 MEMBER LOCKEY: That's right.
17 There is no way to know that.

18 CHAIRMAN ZIEMER: Okay. Thank you.
19 That is helpful. Any further questions?

20 Well, we have before us a motion to
21 recommend adding a class to the SEC, in this
22 case for Oak Ridge Hospital. Are you ready to

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1 vote? It appears that we are ready to vote by
2 roll call.

3 MR. KATZ: Ms. Beach?

4 MEMBER BEACH: Yes.

5 MR. KATZ: Mr. Clawson.

6 MEMBER CLAWSON: Yes.

7 MR. KATZ: Mr. Gibson.

8 MEMBER GIBSON: Yes.

9 MR. KATZ: Mr. Griffon.

10 MEMBER GRIFFON: Yes.

11 MR. KATZ: Dr. Lockey.

12 MEMBER LOCKEY: Yes.

13 MR. KATZ: Dr. Melius.

14 MEMBER MELIUS: Yes.

15 MR. KATZ: Ms. Munn.

16 MEMBER MUNN: Yes.

17 MR. KATZ: Dr. Poston.

18 MEMBER POSTON: Yes.

19 MR. KATZ: Mr. Presley.

20 MEMBER PRESLEY: Yes.

21 MR. KATZ: Dr. Roessler.

22 MEMBER ROESSLER: Yes.

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1 MR. KATZ: Mr. Schofield.

2 MEMBER SCHOFIELD: Yes.

3 MR. KATZ: And Dr. Ziemer.

4 CHAIRMAN ZIEMER: Yes.

5 MR. KATZ: It is unanimous.

6 CHAIRMAN ZIEMER: Thank you. The
7 motion carries. We will make the appropriate
8 recommendation to the Secretary to add a class
9 to the SEC.

10 We are a little ahead of schedule,
11 but I am going to go ahead and check to see if
12 the Bliss & Laughlin petitioners are on the
13 line. If they are, then we will proceed with
14 this item. Otherwise, we will delay a short
15 bit.

16 Are the petitioners for Bliss &
17 Laughlin on the phone lines? Okay.
18 Apparently not. So we will need to wait.

19 I am going to use this opportunity
20 for us to do a little bit of our work, Board
21 work, which is on tomorrow's agenda. Looking
22 at you so far, we have added a class for a

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1 certain group at Brookhaven National
2 Laboratory.

3 We also indicated yesterday that we
4 would need to examine the later part of the
5 original petition, that we also have a
6 Brookhaven site profile that needs to be
7 examined, as well as an SC&A review of the
8 site profile.

9 So we are going to need a
10 Brookhaven Work Group, and it is my intention
11 to add at least one of the new members to that
12 Work Group. So I would like to at least
13 identify at this point three or four
14 individuals who are not conflicted and who
15 would be interested in participating in the
16 Brookhaven.

17 I see Brad and Josie. Any others -
18 - and Gen Roessler. Okay. Are there any
19 others that have a specific interest in
20 Brookhaven?

21 MEMBER MUNN: Yes, I certainly do.

22 CHAIRMAN ZIEMER: Wanda.

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1 MEMBER POSTON: Paul, I will do it.

2 CHAIRMAN ZIEMER: Now I am already
3 up to five individuals. Well, there will be a
4 new member. One of you will become the
5 alternate because I want to get a new member
6 involved, and I won't name it yet -- him or
7 her; I guess they are all males -- and give me
8 a little breathing space. I will name a Chair
9 at that time after I determine who will be on.
10 I just wanted to get some potential names
11 here.

12 We will try to get that Work Group
13 established as rapidly as we can with a new
14 member in place. In fact, we probably will go
15 ahead, won't even name the new member until
16 they are -- or can we name people until they
17 are really seated? I know they have to go
18 through the process, but we will wait and name
19 that.

20 Anyway, the four of you will be the
21 group. Now having said that, let me tell you
22 one other thing that I am in the process of

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1 doing. That is that currently we have 20 work
2 groups and two subcommittees. This will mean
3 23. Now one of those, Blockson, basically has
4 finished their work. Anyway, I am still sort
5 of tracking this.

6 We have -- if you look at those 22
7 groups, and each of those has four or five
8 slots, we have over 100 positions in work
9 groups that are populated by 12 people. So if
10 you do the math, you see that the average
11 workload is seven or eight work groups or
12 subcommittee assignments, but the distribution
13 actually is not all that even.

14 So I want to go back and look at
15 the numbers of assignments that people have as
16 well as the number of chairs that they -- or
17 work groups that they are chairing before I
18 make this final appointment on chairing this,
19 and also as we phase the new people in,
20 certainly, at the front end we want to get
21 them all involved in at least one work group
22 and maybe even as observers on an additional

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1 one or so.

2 Nonetheless, I may end up moving
3 some of the alternates who are on present
4 committees and opening alternate slots for the
5 new people until they sort of get their feet
6 wet, and then I'll make sure that they get
7 fully engaged in the work group or
8 subcommittee activities.

9 In any event, I am working on that
10 sort of a matrix of assignments, and I want to
11 take a look at that before we make the final
12 decision on who should chair this group, and
13 then possibly look at moving some of the other
14 folks around. We will use these four as the
15 starting point for the Brookhaven Work Group.

16 MEMBER BEACH: Paul, I do have a
17 comment. We also have a number of items that
18 are kind of waiting in the wings where we have
19 reports from SC&A that we haven't developed
20 work groups for, and we might want to take a
21 look at that also.

22 CHAIRMAN ZIEMER: Well, that is

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1 exactly right. A lot of what we are doing now
2 is based on -- whenever we have an SEC to act
3 on, it becomes a priority. So those are the
4 ones that we are sort of pushed to deal with.

5 Yes, and certainly a point well taken that we
6 have a number of site profiles that have yet
7 to be addressed in terms of matrices.

8 Some of those themselves get
9 impacted by the SECs. An example is the
10 Hanford one where the original matrix is very
11 much impacted by the action taken just at this
12 meeting itself. So that is kind of a changing
13 picture, but at some point we have to be able
14 to address all of those as we go forward.

15 The other part of it is it becomes
16 important for us to close out activities that
17 are already underway, and I think all of you
18 work group chairs need to take a look at your
19 activities and, to the extent possible, push
20 forward -- and I am talking specifically work
21 groups; our subcommittees are ongoing, but
22 work groups are supposed to have a finite

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1 life. To the extent that they are becoming
2 less than finite, we need to push forward and
3 try to come to closure.

4 Sometimes the closure is difficult
5 because you may be waiting for SC&A or NIOSH
6 to produce something. It may be a white
7 paper. It may be some other activity, but
8 whenever that occurs, we need to keep pushing.

9 I know they have their own limitations on
10 getting work done, and they do more than Board
11 work. They have their whole group of
12 activities that they are engaged on in an
13 ongoing basis. But we all need to push
14 forward on those activities and perhaps bring
15 some of these to a close as rapidly as we can.

16 MEMBER CLAWSON: Paul, we also need
17 to be looking at the new members. I don't
18 know if they have their conflict of interest
19 paperwork in.

20 CHAIRMAN ZIEMER: No. That is part
21 of the reason they are not yet seated. They
22 have to go through the conflict of interest

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1 issues. They have to go through the -- well,
2 you know all of it. Then on top of that, they
3 have to figure out how to use the new
4 computers. Okay.

5 Ted, you have a comment?

6 MR. KATZ: Just while we are -- not
7 about computers. But while we are on the
8 Brookhaven topic, I just wanted to raise a
9 question for the Board here with respect to
10 SC&A tasking.

11 SC&A has delivered a site profile
12 review, which you mentioned, for the Work
13 Group to consider, but I don't know whether
14 you want to consider doing this now or leave
15 this to the Work Group.

16 The SEC petition evaluation from
17 OCAS covered the full duration of the
18 petition. So it recommended adding a class up
19 to '79, and then there is from '84. In
20 effect, it is saying that class should not be
21 added.

22 I don't know whether you want to

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1 task SC&A at this point.

2 CHAIRMAN ZIEMER: Well, what I
3 would prefer to do on that is we have on our
4 agenda tomorrow SC&A tasking, and I want to do
5 this in the context of other tasking that we
6 do. So we will try to do that all at one
7 time.

8 Also, I would like to do that,
9 although Joe Fitzgerald is here. John Mauro
10 was called out this morning, and he will be
11 back. I would prefer to do the tasking when
12 John is present with us as well. So the
13 actual tasking on Brookhaven, and there will
14 be some others, I think we can do that all at
15 the same time tomorrow. Then we will have
16 that sort of in the context of the bigger
17 picture.

18 Of course, we had the Hanford
19 petition yesterday, but we already have a
20 Hanford Work Group. So they will be moving
21 forward on those issues.

22 The Oak Ridge has been taken care

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1 of. We will have to see where we end up with
2 Bliss & Laughlin, which is the next item on
3 our agenda. Let me check to see if the Bliss
4 & Laughlin petitioners are on the line.

5 Are either of the Bliss & Laughlin
6 petitioners on the line, the phone lines, this
7 morning?

8 MS. STEFKO: Yes.

9 CHAIRMAN ZIEMER: Okay, you are
10 both there. We are a little bit early here,
11 but we thought, if you are on the line, we
12 will proceed with the Bliss & Laughlin
13 consideration this morning.

14 Oh, we have a gentleman here also.
15 So you will have an opportunity as well to
16 participate. I was not informed that you
17 would be here. So thank you, and in a moment
18 we will have you identify yourself and speak
19 as well. Oh, you are not a petitioner? You
20 are representing a claimant?

21 MR. RAMAGY: I am representing a
22 claimant.

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1 CHAIRMAN ZIEMER: In our
2 discussions here this morning on the petition,
3 the petitioners have the privilege of speaking
4 to the assembly outside of the public comment
5 period, but if you wish to address the
6 assembly, you would need to sign up to do that
7 during the public comment period.

8 Then we are going to proceed with
9 the Bliss & Laughlin SEC petition evaluation
10 report, which will be presented by Dr. Glover
11 from NIOSH, and then the petitioners will have
12 an opportunity to add comments as well. So,
13 Sam, you are already at the podium. Welcome.

14 DR. GLOVER: Thank you, Dr. Ziemer.
15 Can you hear me okay? All right.

16 This is highly -- this actually is
17 linked to another facility, which is Bethlehem
18 Steel. There is a lot of history that the
19 Board has taken up.

20 Bliss & Laughlin was a large steel
21 manufacturing facility located in Buffalo, New
22 York. They operated at this site from 1929 to

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1 1971, and they produced cold finished steel
2 bars for a variety of end users.

3 This was called the Buffalo Works
4 which provided non-radioactive components for
5 the Atomic Energy Commission during the early
6 1950s. It was later moved to Albuquerque.
7 The plant closed in 1971 and sold, currently
8 owned by Niagara LaSalle Corporation.

9 Don't have a very good angle here.

10 What I was hoping to provide is just some
11 feel for how some of these different sites
12 come together in that area, and,
13 unfortunately, the grain is just not good
14 enough to see on either the copy or the thing
15 here. It looked better on my computer screen.

16 We had Bliss & Laughlin right here,
17 but it is basically just to show you how close
18 the LOOW facility -- what are the different
19 operations, how quickly Bethlehem -- where
20 Bethlehem Steel was with respect to this, how
21 quickly things could be trucked back and
22 forth. It looks a lot better on the

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1 electronic file, unfortunately.

2 These several facilities were all
3 very close in proximity. So it really enabled
4 rapid -- being able to produce it one day and
5 machine it at Bliss & Laughlin, take it to
6 Bethlehem Steel, truck it back to LOOW very
7 quickly. So this is just a blow-up of that.

8 So the records indicate that Bliss
9 & Laughlin performed five and possibly six
10 machining operations, and I will explain why
11 the possibly six, for the AEC for natural
12 uranium rods. There was one operation in
13 1951, and that preceded the first, the 1951,
14 April 25-26, machinings at Bethlehem Steel.

15 This operation was to take the rod
16 that had been previously rough rolled at
17 Simonds Saw. It had laps in it. They had to
18 machine those off so that those wouldn't be
19 propagated at Bethlehem Steel. They wanted to
20 see what Bethlehem Steel could do versus
21 propagating those laps into that.

22 So Bliss & Laughlin removed that

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1 outside edge. In 1952 there were four or five
2 operational days where they essentially took
3 bars finished at Fernald and machined the
4 outside of those cores off that didn't meet
5 the specs.

6 The site was surveyed by the
7 Formerly Utilized Sites Remedial Action
8 Program, FUSRAP, in 1992, and clean-up was
9 conducted in 1998 through March of 1999.

10 A little bit of background. So
11 October 14, 2008, petition received by NIOSH.
12 January 29, 2009, it was qualified for
13 evaluation. On June 30, 2009, an evaluation
14 report was issued, and we delayed this
15 presentation until this date at the request of
16 petitioners.

17 The petition-requested class
18 definition was all employees of Bliss &
19 Laughlin from [identifying information
20 redacted], 1948, through [identifying
21 information redacted], 1998. Based on NIOSH
22 research and covered operation period, as

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1 determined by the Department of Labor, NIOSH
2 revised the petition-requested class and
3 evaluated all employees at Bliss & Laughlin
4 for the period from January 1, 1951, through
5 December 31, 1952, and/or during the residual
6 period from January 1, 1953 through December
7 31, 1998.

8 Let's see. So I want to make it
9 clear that the previous date, the '48-'49
10 period, was revised, the operational period.
11 Department of Labor revised that to begin in
12 1951.

13 So documents associated with this,
14 starting at the top -- this is being cut off,
15 but we have the TBD-6000, which is the site
16 profile for atomic weapon employees working
17 with uranium and thorium metals; the site
18 profile for atomic weapon employees that
19 refined uranium and thorium, which is TBD-
20 6001. We have TIB information, which is
21 associated with the X-rays. You are familiar
22 with these, and also TIB-0070 which is dose

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1 reconstruction in residual radioactivity
2 periods.

3 We had a number of interviews with
4 former employees of B&L, and also one former
5 feed materials production employee. The SRDB
6 has approximately 200 documents pertaining to
7 Bliss & Laughlin, and these contain historical
8 background information, process information,
9 trip reports, air sampling data sheets, FUSRAP
10 reports, and residual contamination surveys.

11 Documentation and affidavits
12 submitted by the petitioners include actually
13 the site survey authorization for the remedial
14 action plan, radiological surveys, a portion
15 of a narrative from a petitioner, finding of
16 facts of the recommended decision for an
17 EEOICPA case. We also looked at computer-
18 assisted telephone interviews for the
19 associated 23 cases.

20 There are 23 cases which met the
21 class definition, one of which was pulled.
22 Dose reconstructions have been completed on 22

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1 cases, nine of which had a PoC greater than 50
2 percent, cases which contained internal
3 dosimetry is zero. Cases which had external
4 dosimetry information also is zero.

5 Petitioners stated that, to the
6 best of their knowledge, there are no
7 monitoring records available to NIOSH.
8 Documents and research material indicate that
9 radiation exposures occurred but were not
10 monitored.

11 Information statements provided in
12 the petition qualify the petition for further
13 consideration by NIOSH and the Advisory Board
14 and HHS. NIOSH determined that access to air
15 sample data and process information for the
16 time period under evaluation. However, we had
17 no air monitoring data for the first rod
18 machining done in April of 1951. Therefore,
19 the records were not complete for all time
20 periods.

21 We concluded that was sufficient
22 documentation to support for at least in part

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1 the proposed class. Therefore, we evaluated
2 the SEC petition.

3 Records indicate that Bliss &
4 Laughlin performed five and possibly six
5 machinings. There is a discrepancy in the
6 documentation after it said they did their
7 last machining operation. Another report
8 says, well, we picked up stuff on this extra
9 day, and so that is why we say five or six,
10 and I will explain that a little bit more.

11 The first of these occurred April
12 24, 1951, and involved two tons of material.
13 The product from the first machining was
14 rolled at Bethlehem Steel on April 25th and
15 26th, 1951. Four drums of oxides were
16 described as being produced in this and picked
17 up and shipped to Mallinckrodt in late 1951.

18 No monitoring is known to have been
19 conducted that we have been able to find
20 during that operation. Oxide residues from
21 these operations were drummed for transfer
22 based on numerous sources and operational

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1 reports that they cleaned these up. So this
2 is including for this facility, it was drummed
3 and then transported.

4 More substantial operations
5 occurred September and October 1952, conducted
6 on one Friday and three or four Saturdays.
7 They were in support of the Fernald facility,
8 and discussions with the Metal Fabrications
9 Coordination Committee Report dated September
10 10, 1952, indicated FMPC, Fernald, would hire
11 a contractor to assist with backlog billet
12 machining while additional equipment was
13 brought online at Fernald.

14 The Tonawanda monthly reports state
15 that 10 truckloads of Bethlehem's rolled rods
16 were uploaded from LOOW in late August or
17 early September. So Bethlehem Steel shipped
18 all the materials to LOOW for storage.
19 Fernald was operational at this time.

20 Those that could not be machined at
21 FMPC would be machined at B&L, and reports
22 further state that the first turnings occurred

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1 September 20, 1952.

2 Tonawanda monthly reports from
3 October of 1952 indicate that 31 beams -- they
4 shipped the straightened rods in H-beams so
5 they would keep them straight. So these are
6 big iron beams. So they basically bundled
7 these things up. So the first time I had ever
8 come across beams of rods, a beam of uranium
9 rods sent to B&L for machining and consignment
10 to National Lead, Fernald.

11 Let's see. They conducted air
12 monitoring data September 26-27, October 4,
13 and October 11. Fernald reported providing
14 rush orders and instructed Bliss & Laughlin
15 personnel to use a fan to blow all the fumes
16 away from the operators on the October 11
17 rolling date, the date the fumes were too
18 high. So they used a fan to actually help
19 mitigate that.

20 Tonawanda report from November 1952
21 stated that 15 drums of turnings were picked
22 up by LOOW from Bliss & Laughlin during this

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1 period, from October 20th to the 24th, and
2 they also reported that a total of 53 55-
3 gallon drums of residue had accumulated at
4 LOOW from the operations at Bliss & Laughlin.

5 This is a diagram of the Bliss &
6 Laughlin, and this right here is blown up.
7 This is where they said they conducted the
8 special rolling area. So this is a layout,
9 and also some of the -- this is from the
10 FUSRAP report. They show what the
11 contamination levels were. So these diagrams
12 are part of the FUSRAP reports. They show
13 some of the residual contamination.

14 Essentially they had what appears
15 to be a fixed contamination in some of these
16 areas. They actually had some fairly high
17 levels left over. You will see how we use
18 those later on.

19 DOL originally established the
20 covered period as 1948 to 1952. Documents
21 show that the basis for operations only
22 support 1951 through '52. Therefore,

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1 Department of Labor changed the covered
2 period.

3 The first machining occurred on
4 April 24, 1951. Additional operations were
5 conducted September 26th and 27th of
6 September, October 4th, October 11th, and
7 possibly October 18th of 1952. Analysis
8 presented later in this presentation assumes
9 October 18th was an operational day.

10 So two components of NIOSH's
11 ability to determine doses will be presented,
12 a bounding method which is based on TBD-6000
13 assumptions, assuming 2,200 hours per year of
14 operations, and these would be used to
15 evaluate overestimates; also a draft best
16 estimate method based on operational data.

17 There's no current cases to be
18 done. So, therefore, I present this as a
19 draft method. We have no cases for which dose
20 reconstruction has not been completed, which
21 would have been done using either TBD-6000 or
22 the previous TBD-2, which is the overestimates

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1 for AWE facilities.

2 So a bounding method started April
3 24, '51, through December 31, 1952. TBD-6000
4 approach applied for each day of the year.
5 TBD-6000 tabulated inhalation and ingestion
6 '51 through '52, also for external dose assume
7 2,200 work hours per year; '56 through '98
8 assume 2000 -- this was the '51 through '55
9 time frame, and then it adjusts for later to
10 have 2,000 work hours per year.

11 Air concentration was assumed to be
12 5,480 dpm per meter cubed. So that is
13 equivalent to roughly 40,000 dpm per calendar
14 day of inhaled activity. Residual
15 contamination values were equivalent to seven
16 dpm per meter cubed, which is 1.65 times 10 to
17 the 5th dpm per meter squared contamination
18 level at the facility.

19 And for external, 50 percent of the
20 days are assumed to be contact with metal.

21 So you can see what the inhalation
22 intake per day is, the associated GSD. So we

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1 are talking about 40,000 dpm per calendar day
2 on this through the rolling time frame. Then
3 we get into residual contamination periods.
4 This is the ingestion intakes and the
5 associated GSD.

6 This shows the external doses.
7 Basically, this is the submersion in a cloud
8 of uranium dust. This is the dose from being
9 at the contaminated floor, direct contact,
10 non-penetrating radiation associated with
11 direct exposure -- your skin, shallow dose,
12 hands and forearms, non-penetrating other
13 skin, and here are the GSD associated with
14 those.

15 Again, for monitoring data the
16 original bioassay external dosimetry data for
17 Bliss & Laughlin. National Lead conducted air
18 monitoring on four occasions. Data included
19 process, general area and breathing zone
20 samples. Data from October 11, 1952,
21 indicated that fans were used to reduce
22 operator exposures.

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1 So in the upcoming analysis,
2 because the breathing zone data was lower,
3 excluded that data for comparative purposes
4 because a mitigating operation was put into
5 effect.

6 Just to give you some feel for the
7 dates, what kind of data we got as a function
8 of time. There is the uranium air
9 concentration dpm per meter cubed on the
10 different days we have. These were
11 essentially when operations were off. So this
12 just kind of gives you a feel for re-
13 suspension activities that would have been
14 going on at the facility.

15 Here I have broken it down into
16 process. We have here the GA samples and BZ
17 samples. You can see the process samples,
18 certainly, are the highest, as they should be;
19 GA samples; and then the breathing zone
20 samples taken for Bliss & Laughlin.

21 I want, again, to give you a flavor
22 for how the geometric means compare. So if

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1 you take that data and put that on our
2 standard z-score plot where you look at our
3 geometric mean GSD where we have Bliss &
4 Laughlin, geometric mean of about 2,603 dpm
5 per meter cubed, and we have TBD-6000, which
6 is 5,840 dpm per meter cubed.

7 So air monitoring data from Bliss &
8 Laughlin is lower than the reference value for
9 operator exposures to machining operations,
10 TBD-6000 based on the highest machining
11 operational daily weighted average from
12 centerless grinding.

13 So for the best estimate that I
14 propose and put forth here -- or we propose --
15 the value for machining operations from TBD-
16 6000 was used to determine the dose, and that
17 is what I will be presenting, rather than the
18 lower data.

19 We assumed all employees ate and
20 drank in the areas, assumed to have occurred
21 during and between operational days. Air
22 concentration used to determine the surface

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1 loading, standard TBD-70 approach and TBD-
2 6000. Used an exponential dilution model
3 between and after operational periods.

4 The FUSRAP data used to determine
5 the exponential decrease during the residual
6 period was more claimant favorable than using
7 a one percent decrease per day. So it gives
8 it -- TBD-6000 gives it the option of using
9 basically the contamination level that is
10 present day, and basically to just get an
11 exponential decrease over time.

12 There is probably some fixed
13 contamination that was associated with this.
14 These are inaccessible areas. So what I
15 present is actually using some very high fixed
16 contamination, but that is the way it was
17 presented.

18 For each operating day, an air
19 concentration of 5480 dpm per meter cubed was
20 used to generate intakes. For the first
21 intake period, initial contamination level of
22 130,000 dpm per meter squared was used to

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1 determine a residual -- a resuspendable air
2 concentration of .13 dpm per meter cubed.
3 Five operating days were used to generate the
4 contamination levels for the end of 1952 and
5 the remainder of the residual period.

6 While it is documented that
7 residual materials were drummed, clean-up is
8 not accounted for in this analysis.

9 So here I have a blow-up of those.

10 Here is the first operating period, declines.

11 Then we have the intake days, and you can see
12 how these spike, and then you can see the fall
13 off as a function of time as that material --
14 so this is the model coming down to the
15 materials concentrations from the FUSRAP
16 studies.

17 That generates the following
18 average as a function of calendar days, 231
19 dpm per meter cubed per calendar day from the
20 4/24/1951 through 12/31/51, 796 dpm per
21 calendar day during 1952. Again, these are
22 just averaged out, taking those high days and

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1 just spreading it out to make it easier for
2 IMBA to be able to handle that and the
3 associated intake from ingestion.

4 We have external doses from the
5 uranium dust, and that is a very small dose;
6 direct contact with uranium, shallow and deep
7 dose; residual contamination, dust and floor
8 contamination; as well as occupational medical
9 dose.

10 Dose rates from TBD-6000 for
11 machining operators for each day of AEC work.

12 We assume contamination levels previously
13 described used to determine the dose for those
14 residual periods and external. We also
15 assumed, because they were handling these
16 drums and they documented this drum work that
17 two days of drum handling were assigned for
18 each operational day, that they had to handle
19 this stuff and then take care of the residual.

20 So we actually gave them full days
21 of handling the drums to determine the
22 external dose from this. You see, as I said,

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1 the very small air submersion dose, 10-5 MR.
2 Contaminated floor exposure is, again, on the
3 order of 8 MR per year. These are the annual
4 doses.

5 Here we have -- we haven't started
6 the daily doses -- 6.27 mR per day from the
7 whole body dose; hands and forearms, large
8 dose, 693 from the direct contact; and other
9 skin, about 63.

10 We have no evidence that AEC
11 required occupational X-rays at B&L, but we
12 did use the TIB-6, assume one annual medical
13 X-ray during the contract period. In this
14 slide, we essentially just sum up all the
15 different components so we can give you a feel
16 for what kind of dose from the different
17 components and how those add up.

18 We provided six examples of dose
19 reconstruction, several cancer types, various
20 employment periods, and also to provide you a
21 feel for the best estimate and bounding
22 estimate doses.

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1 So we have prostate cancer as an
2 overestimate, employed '51 through '81,
3 diagnosed at '81, PoC using the overestimating
4 TBD-6000 approach within 39 percent. We have
5 used that same case and used the best
6 estimate, within about 7.38 PoC.

7 Bladder -- the rest of these are
8 best estimate, that draft best estimate
9 approach. Bladder, 2.31 percent; bone marrow,
10 depending on -- there is the dual model that
11 you have to use for that, 2.08 and 1.26
12 percent; a lung case, 83 percent; liver, 24,
13 and bone surface, 20 percent.

14 So now as to the values in the
15 petition using the guidelines established in
16 42 CFR 83.13 and submitted in a summary of its
17 findings, we issued this evaluation report
18 June 30, 2009. We have a two-pronged test
19 established with the Oracle program. Is it
20 feasible to estimate the level of radiation
21 doses to individual members of the class with
22 sufficient accuracy, and is there a reasonable

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1 likelihood that such radiation doses may have
2 endangered the health?

3 NIOSH found that the available
4 monitoring records, process descriptions, and
5 source term data are adequate to complete dose
6 reconstruction with sufficient accuracy to the
7 proposed class of employees. Health
8 endangerment determination is not required.

9 So a finding of feasibility is that
10 we can do the internal dose from uranium, the
11 beta gamma external and the occupational
12 medical X-rays.

13 With that, I conclude my
14 presentation.

15 CHAIRMAN ZIEMER: Thank you, Dr.
16 Glover. Let's see if we have any questions
17 from the Board on the evaluation report as
18 presented.

19 MEMBER PRESLEY: I have one
20 question.

21 CHAIRMAN ZIEMER: Yes, Mr. Presley.

22 MEMBER PRESLEY: Dr. Glover, were

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1 they rolling enriched or, I presume, depleted
2 at that time?

3 DR. GLOVER: It was natural
4 uranium. 1951 would have preceded the
5 Hanford, yes.

6 MEMBER PRESLEY: Thank you.

7 CHAIRMAN ZIEMER: Any other
8 questions on the presentation?

9 So this is largely a TBD-6000
10 methodology. I don't believe on Bliss &
11 Laughlin we had a separate appendix like we do
12 on some of the more complex AWE sites.

13 DR. GLOVER: That's correct.

14 CHAIRMAN ZIEMER: I just wanted to
15 confirm that. If there aren't any questions
16 at this time, we will have an opportunity to
17 hear from the petitioners.

18 I would like -- either one or both
19 of you may wish to speak. When you do, if you
20 wish to identify yourself for the record,
21 please do that, and then proceed with your
22 comments.

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1 MS. STEFKO: Good morning. I am
2 Linda Stefko, daughter of deceased Vincent P.
3 Hibbert, employed by Bliss & Laughlin Steel. I
4 have compiled a list of questions and
5 statements referring to our SEC petition.

6 CHAIRMAN ZIEMER: Okay.

7 MS. STEFKO: Okay. At the bottom
8 of page 3 on the SEC, it states, it is hard to
9 understand how NIOSH can estimate radiation
10 doses with sufficient accuracy when, again,
11 there are no records available.

12 On page 9, NIOSH has concluded that
13 internal and external radiation exposures and
14 radiation doses were not adequately monitored
15 at Bliss & Laughlin, referring us to Section
16 7.4, which clearly states under the SEC-00131,
17 the basis for the petition is that the
18 facility was used to roll uranium bars. There
19 was a lack of or no monitoring records, to the
20 best of their knowledge, and that radiation
21 exposures were incurred, but were not
22 monitored.

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1 On page 11, it lists interviews.
2 Can you identify by name the Bliss & Laughlin
3 contacts? There was a chemist, a clerk, a
4 janitor, which states that there were phone
5 interviews done. We have no names on those
6 people.

7 On page 17, contaminated letters
8 removed in '98 tell us that there were higher
9 levels between 1948 through '52. What does
10 that tell us about the levels present during
11 1948 and '52?

12 On page 18, with the largest
13 equipment item running, total alpha air
14 concentrations measured in the general work
15 area were considerably above the worker
16 exposure control level guideline in effect at
17 that time.

18 On page 21, the 7.2 evaluation
19 states, a principal source of internal
20 radiation doses for members of the class under
21 evaluation was from the inhalation and
22 ingestion of uranium particles in the dust

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1 generated by the machining and handling of the
2 uranium metals.

3 On page 35, in the listed
4 references, it states, a letter concerning
5 precautions taken at Bliss & Laughlin from
6 Charlie to Dick. Can you present this letter
7 for us to view? Can you send us a copy of
8 this letter? It states that it was a letter
9 concerning safety precautions taken at Bliss &
10 Laughlin.

11 We would like to know just how
12 carefully all our materials have been reviewed
13 and thoroughly studied. We have sent in all
14 documentation pertaining to this exposure.
15 You have Vincent P. Hibbert's hospital,
16 medical, and surgical records from Roswell
17 Park Cancer Institute and Our Lady of Victory
18 Hospital. You've got his birth certificate,
19 marriage, death certificate, and his complete
20 autopsy report.

21 Also included in our documentation
22 were numerous research articles from Roswell

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1 Park Cancer Institute Library and from our
2 local library.

3 Also, do you have in front of you
4 the Bliss & Laughlin facility floor plan? It
5 was included in our SEC petition packet on
6 10/4/2008 indicating the ultimate floor plan
7 at the mill at Bliss & Laughlin.

8 I also have here from our hearing,
9 the hearing rep was Richard Koras on March 22,
10 2006. This is my statement to him on that
11 particular day when we all assembled downtown.

12 There are some things in life --
13 There are some things in life you can't
14 change. We can't change the fact that Vincent
15 Hibbert, file number 071075100, our father,
16 worked diligently for 36 years, from 1936 to
17 1972, in management as chief timekeeper for
18 Bliss & Laughlin Steel in a contaminated
19 facility located at 110 Hopkins Street,
20 Buffalo, New York. This facility was
21 contaminated with excess levels of uranium, as
22 stated in a July 1992 memo issued by the DOE.

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1 It was determined that residual
2 uranium was far above the DOE guidelines.
3 Please note that these exposure studies were
4 based on a 40-hour work week, whereas my
5 father, being a salaried employee, typically
6 worked 48 to 60 hours a week, including almost
7 every Saturday. As such, a presumption of his
8 exposure was far greater than most, if not
9 all, the mill workers that were there at the
10 time, and considerably greater than the
11 exposure assumption used in the dose
12 reconstruction analysis.

13 This is a mistake. It is stated in
14 all reports. My father's office consisted of
15 two upright permanent structured walls and two
16 portable upright walls approximately seven
17 feet high. There was no permanent ceiling
18 enclosing his office, only the mill roof.
19 There were no separate controlled
20 ventilations. He breathed the same
21 contaminated air, and he was exposed to the
22 same occupational radiation as all other mill

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1 workers. However, his exposure was repeatedly
2 compounded by his 48 to 60 hour work week, not
3 the dose reconstruction analysis figures of
4 only 40 hours per week.

5 Again, this is a mistake. I am
6 neither a scientist nor a technician.
7 However, many questions in this process remain
8 to be answered. Why weren't residual
9 contamination time periods considered when
10 compiling dose reconstruction figures? Many
11 of the tables that illustrate dose
12 reconstruction for my father only includes
13 figures from 1948 to 1950 or 1948 to 1952,
14 while EEOICPA Bulletin 0502 issued on April
15 13th of 2005 states that residual radiation
16 contamination existed at the Bliss & Laughlin
17 Buffalo facility from 1948 to 1998.

18 We attached a copy of that bulletin
19 to this document at our hearing. Why did it
20 take so long to conclude that a site could
21 remain contaminated long after the source of
22 contamination is removed? If exposure to

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1 contamination was as minuscule as claimed in
2 the dose reconstruction, what led the DOE to
3 declare the site contaminated in the first
4 place?

5 DOE statistics, findings, and other
6 input into this process are absent. Why
7 didn't one agency talk to the other or, if the
8 DOE was involved, why isn't participation
9 detailed in the NIOSH investigation? Where is
10 the DOE in this process?

11 How can one worker receive
12 compensation for being afflicted with
13 workplace-related cancers while another
14 employee working mere feet away from him in
15 the same radiation contaminated area be
16 denied?

17 My father suffered severely from
18 colon -- rectal cancer and lip cancer. His
19 rectal cancer eventually metastasized into one
20 kidney, his liver, his lungs and his brain,
21 eventually causing death. I can't help
22 believe that the cancers that caused my father

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1 to suffer and die were likely caused by the
2 radiation exposure from his workplace.

3 This wasn't Bliss & Laughlin's
4 fault, and we feel it wasn't the Department of
5 Labor or DOE's fault. It surely wasn't my
6 father's fault. In those days a person went
7 to work to make a living to support his
8 family, and he had no idea what radiation
9 exposure could do to him.

10 At that time in our history,
11 sophisticated radiation monitoring systems
12 were nonexistent. Individual radiation dose
13 badges, protective clothing and other
14 equipment and safety policies were not
15 utilized at Bliss & Laughlin.

16 Vincent Hibbert, my father, paid a
17 big price for not knowing he worked daily in a
18 poisoned workplace. His memory deserves
19 justice. I respectfully request this claim be
20 thoroughly reviewed to specifically address
21 not only the points brought up in this
22 statement, but also all other issues raised by

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1 my sisters and all other claimants and their
2 families in this matter.

3 While each of our circumstances is
4 unique, all affected atomic weapons employees
5 at Bliss & Laughlin and their families did the
6 same work, bore the same burden, and suffered
7 the same hardship.

8 I would like to know if you have in
9 front of you or if you have access to the
10 floor plan that I was able to send from the
11 U.S. Army Corps of Engineers indicating the
12 entire workplace area at Bliss & Laughlin?
13 And I have indicated on the floor plan where
14 my father's office was within the mill.

15 A couple more questions I have
16 here. I would like to know who prioritizes
17 the stages of these cancers, and why are they
18 prioritized? And we would like to know how
19 can the air quality estimates of 1998 even
20 begin to compare with the contaminated air,
21 the uranium runs of 45-50 years after the
22 fact? Certainly, there can't be any

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1 comparison.

2 In all our research that we have
3 submitted with all our documentation, it still
4 states, no records available. I would like to
5 know who has listened to our audio that was
6 taped at our hearing in Buffalo on March 22 of
7 2006 -- are you aware of all the statements
8 that we made, and upon receiving our text we
9 sent retractions, and we never received
10 information from Washington that the
11 corrections were taken care of or even
12 acknowledged. Thank you.

13 CHAIRMAN ZIEMER: Thank you very
14 much. I did want to -- this is Dr. Ziemer. I
15 did want to make a couple of comments.

16 You asked for names of the people
17 that were interviewed, and I believe those may
18 be protected by Privacy Act issues, but I will
19 ask the legal staff to confirm that. But in
20 any event, unless they are not -- normally,
21 names of that type are not released because of
22 Privacy Act requirements.

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1 MS. STEFKO: I do understand that,
2 and the Charlie to Dick? Is there any way we
3 can get a hard copy on that?

4 CHAIRMAN ZIEMER: On the letter, I
5 know the letter is listed in the evaluation
6 report as a reference, and it is not clear to
7 me why that could not be made available. We
8 will certainly run that down.

9 Let me also comment that the normal
10 practice of this Board on these types of
11 recommendations from NIOSH, particularly since
12 the Board is -- well, we have had this during
13 the summer, but we haven't had your comments
14 until today.

15 Normally, the Board assigns this to
16 a work group, and we would then have an
17 opportunity to delve in more detail to both
18 the NIOSH recommendation as well as the points
19 raised by the petitioner. I will leave it to
20 the Board in a moment to determine what action
21 to take, but that is the usual practice.

22 Is there an additional comment from

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1 your sister?

2 MS. STEFKO: I believe so. Peggy?

3 MS. WOJCIK: Yes.

4 CHAIRMAN ZIEMER: Identify, if you
5 wish, your name for the record.

6 MS. WOJCIK: My name is Margaret
7 Wojcik, daughter of Vincent P. Hibbert.

8 I would like to know why the
9 Department of Labor came to the conclusion
10 that the time frame at this site is -- I would
11 like to know if Department of Labor obtained
12 copies of a contractual relationship to
13 confirm this fact, or are they just surmising
14 this? That is one of my questions.

15 CHAIRMAN ZIEMER: And that is
16 probably a question we can't answer here
17 today, but certainly can be followed up on.
18 Why don't you proceed with all of your items.

19 MS. WOJCIK: All right. If the
20 Department of Labor has seen copies of a
21 contractual relationship, we would like to see
22 a copy of it; and if they lessened the time

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1 because no proof was found, we feel that the
2 time should remain as the Department of Energy
3 had originally stated, which was the start
4 date was 1948, not 1951.

5 I do -- my sister had mentioned my
6 father's job description. I just want to add
7 a little more to that. The machine at Bliss &
8 Laughlin Steel is owned by the government, and
9 operations were conducted on Saturdays to
10 avoid the emergency she did mention already.

11 My father used to be the first
12 employee at the plant to unlock the facility,
13 work a full day, then lock up the plant at the
14 end of the day. No records indicating the
15 radiological conditions of the space following
16 uranium machining have been located, and,
17 again, as my sister mentioned, the marks of
18 the site's floor plan you have.

19 There was one building housing the
20 mill. Vincent Hibbert's portable office
21 within the mill consisted of two upright
22 permanent structure walls supported with

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1 upright walls approximately seven feet high.
2 This information was stated in a plant
3 specific hearing we had March 22, 2006.

4 There was no permanent ceiling in
5 his office, only the mill roof, and there was
6 no separate controlled ventilation system, and
7 he breathed the same contaminated air, as was
8 mentioned earlier, and was exposed to the same
9 occupational radiation as all other mill
10 workers.

11 For lack of monitoring, NIOSH does
12 not have any informational records of Bliss &
13 Laughlin Steel, we have been told.

14 Also on page 4 of our SEC petition
15 evaluation report, it reads under Class
16 Evaluated by NIOSH, based on its preliminary
17 research, NIOSH accepted the petitioner with
18 the rest of the class and advised the
19 operational start date. Based on the covered
20 period determined by the Department of Labor,
21 the covered period's start date changed from
22 1948 to '51.

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1 We would like to know why did that
2 date change? Why were those years deleted?
3 Thank you.

4 CHAIRMAN ZIEMER: Okay, thank you,
5 Margaret. Again, a good portion of those
6 questions probably cannot be answered at this
7 moment, but if this activity is assigned to
8 the Work Group, follow-up can be made.

9 Let me also ask a question. I
10 think maybe your sister raised this point
11 about a March 22nd recording where, maybe at a
12 worker outreach meeting perhaps -- I have not
13 personally heard that recording yet, but I
14 assume it is accessible to us. So we can
15 certainly follow up on that as well.

16 Any of the Board members aware of
17 that particular -- or maybe Mr. Elliott can
18 direct us on that. Larry?

19 MR. ELLIOTT: I believe that she is
20 talking about the final Adjudication Branch
21 hearing. I am not sure.

22 CHAIRMAN ZIEMER: Department of

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1 Labor?

2 MR. ELLIOTT: Department of Labor,
3 and I am not sure that in our claim file or
4 the petition file we would have that recording
5 or that transcript.

6 CHAIRMAN ZIEMER: If that was a
7 Department of Labor hearing, we would not have
8 access to that, Margaret, but certainly, we
9 will follow up on that.

10 MR. ELLIOTT: I have asked Laurie
11 Breyer, our SEC counselor, to call the
12 petitioners and talk. We will find out more
13 details.

14 CHAIRMAN ZIEMER: Right.

15 MR. ELLIOTT: They are going to
16 have to file FOIA requests to us or to DOL for
17 the specific information they are seeking.

18 CHAIRMAN ZIEMER: Okay. Thank you.
19 Brad Clawson, did you have a comment or
20 question?

21 MEMBER CLAWSON: I did. I guess
22 they were more for Sam. I was wondering about

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1 the years, of how come they got changed and so
2 forth, but also what kind of data do we have?

3 According to this, you don't have any data.

4 CHAIRMAN ZIEMER: What they have is
5 process data which, under the rule, can be
6 used to bound the dose. There is no
7 monitoring data, as I understand it.

8 Sam, can you address the first
9 question about the change by Department of
10 Labor of the time period?

11 DR. GLOVER: Okay. During the
12 course of this, I want to point out a couple
13 of real quick things.

14 The previous cases were done with
15 TBD-6000 or AWE -- full-year, including '48
16 through '52, so that whole time frame as far
17 as the cases during the operational periods.
18 Indications are that very limited operations
19 occurred, and we have very clear
20 documentation, the Tonawanda reports, the NYO
21 reports.

22 So Fernald conducted four air

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1 sampling campaigns in '52 when they took over.

2 They didn't have controls of the AEC
3 operations until May of 1952 when they had
4 contractual obligation to take over the
5 rolling operations for AEC. We have that
6 documented.

7 The 1951 -- there is a report that
8 says that this is when it began, very clearly
9 stated. There is no indication of any
10 operation before April 24, 1951.

11 So the DOE had originally -- DOL
12 had used a broad report that talked about a
13 time period of '48 through '52 to establish
14 the period. That is what we believe. We gave
15 them -- we showed them the additional
16 information. They were provided that, and
17 otherwise, what is the source term?

18 We don't know why they would be
19 operating before 1951.

20 CHAIRMAN ZIEMER: Thank you, Sam.
21 Wanda Munn? First, Larry had an additional
22 comment.

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1 MR. ELLIOTT: I don't want this
2 lost, and I think Sam kind of glossed over it,
3 and I want to make sure that it is very clear,
4 and correct me if I am wrong, Sam.

5 But the 22 claims that we dose
6 reconstructed, we used TBD-6000 for all four
7 years. Right?

8 DR. GLOVER: That's right.

9 MR. ELLIOTT: We used TBD-6000 for
10 all the years, all four years. Then as we
11 looked -- as we were doing the evaluation of
12 this petition, we identified information and
13 documentation that led us to believe that
14 there was no source term there for the first
15 two years.

16 We turned to DOL and DOE, and we
17 shared that with them, and they have the
18 ownership of the facility designation, and
19 they changed that. NIOSH cannot make up
20 source term. So if we were to redo these
21 cases, which we are not proposing to redo the
22 claims, but if we have a new claim that comes

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1 in from Bliss & Laughlin, we are only going to
2 dose reconstruct two years.

3 So I hope everybody has caught
4 that. There are 22 claims that have already
5 been dose reconstructed, got a benefit of
6 doubt with four years, two of which didn't
7 have source term.

8 CHAIRMAN ZIEMER: Thank you. Wanda
9 Munn?

10 MEMBER MUNN: These are the kinds
11 of SECs that really raise a great deal of
12 empathy for some of us. I find myself
13 wondering, if I were on the other end of that
14 phone line and had tried to make my case known
15 and had these questions that still remained,
16 whether I would ever be able to accept what I
17 was hearing transpire.

18 We use terms, phrases, refer to
19 documents and processes that are completely
20 foreign to anyone outside most of the people
21 who are in this room.

22 Quite often, we seem to miss the

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1 basic thing that must harm most petitioners,
2 which is what caused the person that I love to
3 have a disease that is a bad disease and die?

4 Was that not caused by the extremely
5 dangerous material because that is what most
6 petitioners believe uranium is, is an
7 extremely dangerous material?

8 We in our process try to interact
9 with the petitioners through other people.
10 We, on the Board, do not have direct
11 interaction with those folks, for the most
12 part. As a matter of fact, our role almost
13 precludes us from doing that.

14 It disturbs me that we seem to be
15 established in such a process so that just
16 simply answering some of these direct
17 questions in an honest way and explaining
18 science to folks is not in our purview. We
19 can't do that as a Board, and it is
20 frustrating for those of us who know that
21 natural uranium is a very, very common element
22 that exists almost all over the United States,

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1 and that many of us probably have in our
2 backyard.

3 The fact that it is a radioactive
4 material and the fact that less than one
5 percent of the material that they are dealing
6 with has any kind of radioactivity in it at
7 all is not understood or known by petitioners
8 broadly, it would appear.

9 So radiation and its relative
10 hazards is not something that is understood.
11 Before we consider the possibility of putting
12 together a work group, it would be very
13 helpful, I think, at this stage of the
14 development of our Board for us to consider
15 the possibility of direct interaction, not by
16 the Board but with other folks who have the
17 opportunity to do so, to answer some of these
18 questions directly and perhaps give
19 petitioners a better idea of why our experts
20 say they believe they can balance these doses.

21 Without some understanding of what natural
22 uranium means, without that being explained in

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1 relationship to our program, it is difficult
2 to understand how a work group would
3 accomplish much more.

4 We have never considered the
5 possibility of just setting up anything other
6 than -- we know in Mike's group, there has
7 been a great deal of concern about worker
8 outreach and what that means and how it is
9 done.

10 There has been a great deal of
11 effort to see that experts have an opportunity
12 to talk to the petitioners and perhaps give
13 them better basic information about what
14 happens in the real world and what happens in
15 radioactive processes, but I am not at all
16 sure that is happening, and this appears to be
17 one of those cases, to me.

18 CHAIRMAN ZIEMER: Okay, thank you
19 for that comment. I'm not sure we are at the
20 point where we can take specific action on it,
21 but it is certainly food for thought. Brad
22 Clawson?

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1 MEMBER CLAWSON: You know, after
2 listening to Wanda, I want to vent some of my
3 frustration, too.

4 We have just passed an SEC for a
5 hospital because they say that they can't tell
6 what went on there, and we passed it for
7 everybody there. Now here we actually have
8 machining operation that we claim that we can
9 do all of this and then to some people, it is
10 magic, and show what they have done.

11 This is actually where they were
12 actually machining this, where the dust and
13 smoke and everything else was; and all we are
14 using, all the data that we have, is the
15 source term of what came in and went out.
16 Okay, what else we got?

17 CHAIRMAN ZIEMER: If you speak, you
18 need to use the mic.

19 MEMBER CLAWSON: Okay. They say
20 we've got air monitoring data, four or five
21 air samples? How many?

22 DR. GLOVER: I want to make sure I

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1 use the mic. Sam Glover.

2 We have -- as I pointed out,
3 there's roughly -- I saw how many dots there
4 were. There's 40 or 50 data points. There's
5 four days worth of air monitoring data where
6 they conducted breathing zone, process sample,
7 and general area samples on four different
8 days in September and October of 1952, not in
9 1951.

10 MEMBER CLAWSON: Okay, there's four
11 days, and I can tell you what happens on
12 different days with inversions and everything
13 else like that. So it is real frustrating for
14 me to see this. It is just frustration to me
15 as a Board member because here are the people
16 that are actually working with this stuff that
17 has so much, that they are there right in the
18 thick of it, and because there is a little
19 glimmer of information, they don't get it, and
20 it is frustration to me.

21 CHAIRMAN ZIEMER: Well, these are
22 issues that may need to be looked at by the

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1 Work Group, but just in a general sense, let
2 me point out a big difference between a
3 facility like this and Oak Ridge.

4 At Oak Ridge, they had a multitude
5 of nuclides of different strengths, a number
6 of unknown operations. Here, we have a
7 facility with very specific amounts of a very
8 specific material with operations done under
9 very specific days.

10 So I would offer that this is a
11 much, much simpler -- at least, you know -- I
12 don't want to pre-judge it because we need to
13 look into the other issues raised by the
14 claimants, but this is certainly very much
15 different than, say, an Oak Ridge hospital.

16 Now, you know, aside from the
17 concerns about who was exposed in that
18 hospital where we cannot limit that, at least
19 in this facility we have a defined facility,
20 and we have people who worked -- and I believe
21 even in the use of TBD-6000, you still cover
22 all of the workers that are in that facility,

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1 as I understood it.

2 It is sort of across the board,
3 regardless of their job description. Is that
4 not correct?

5 DR. GLOVER: Yes, sir. Well, TBD-
6 6000 doesn't allow for a striated approach.
7 We assume they were all machinists.

8 CHAIRMAN ZIEMER: Yes, you have
9 assumed that, regardless of whether they were
10 administrative in this case, because there
11 does not appear to be separation between the
12 areas.

13 Nonetheless, there are issues that
14 have been raised that need to be looked at,
15 Brad. So I don't want to gloss over that
16 except to point out that it is certainly quite
17 different, say, than the Oak Ridge Hospital.

18 MEMBER CLAWSON: And I understand
19 that, Paul, and I understand also in the
20 medical field they keep very close track of
21 information of what comes into there and what
22 goes out of there.

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1 It is frustration, but -- yes.

2 CHAIRMAN ZIEMER: Okay. Yes, Dr.
3 Lockey?

4 MEMBER LOCKEY: Brad, let me
5 respond to that. It's true. I mean, when we
6 looked at Oak Ridge, we didn't think there --
7 it probably was based on our medical knowledge
8 of health endangerment. But the law says you
9 have to have monitoring data.

10 It is a complex facility to model
11 the radionuclides, tissues going over to the
12 hospital. We just couldn't reconstruct it.
13 That's all. There is nothing there, nothing
14 at all.

15 MEMBER CLAWSON: You got a source
16 term there that you needed to come in.

17 MEMBER LOCKEY: But you don't know
18 where it's going through the hospital. You
19 don't know where the tissue is going. You
20 don't know where utensils are going. You
21 don't know who did the cross-staffing. It
22 really is a different setting. It's a

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1 different situation.

2 CHAIRMAN ZIEMER: Well, and I don't
3 want us to debate all the issues here. I
4 think we probably have enough issues before us
5 to make a determination as to whether or not
6 this needs to be addressed by a work group.

7 Let me tell you that, if the Board
8 believes that we should have a work group look
9 into the issues, I will initially assign this
10 to the TBD-6000 Work Group since the TBD-6000
11 was the basis for this.

12 Now I should point out that that
13 Work Group is looking not only at TBD-6000 but
14 is also looking at the appendices, and the
15 most prominent one right now is Appendix BB,
16 which is General Steel Industries, for which
17 there are a lot of issues, and that is a
18 fairly heavy responsibility right now.

19 On the surface of this one, it
20 looks to be less complex than General Steel
21 Industries, which had multiple sources over
22 long periods of time under very different

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1 kinds of situations.

2 I would say that, after assigning
3 that, if the Work Group itself, as they get
4 into this, if they feel that it is much more
5 complex than they can handle in a reasonable
6 time, we may need to set up a specific
7 separate group. But this appears to the Chair
8 to be a TBD-6000 issue at the moment, and thus
9 it would be logical, if the Board so wished,
10 to pursue both the petitioners' points and to
11 review in more detail the evaluation report
12 itself, that this be assigned to that group.

13 We would automatically have the
14 assistance of SC&A because they are tasked
15 already to work with TBD-6000. I believe that
16 is correct, Ted. So that it would not
17 necessarily require a separate, specific task
18 because they are already tasked for TBD-6000.

19 Am I correct on that? Kelly is agreeing.

20 Further comments or questions? Now
21 the appropriate action would be either a
22 motion to accept the NIOSH recommendation or

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1 to defer action and refer this to a work
2 group, which I am suggesting, if you do that,
3 it should be the TBD-6000 Work Group. Dr.
4 Melius.

5 MEMBER MELIUS: I move that we
6 defer action on making a recommendation on
7 this SEC and refer the report to the TBD-6000
8 Work Group for further review.

9 MEMBER CLAWSON: I second it.

10 CHAIRMAN ZIEMER: Thank you. That
11 has been seconded. Before we vote, let me ask
12 for further comments on the motion. I would
13 also point out to the petitioners that, if
14 this motion passes and the TBD-6000 Work Group
15 is empowered to pursue this, we would keep you
16 informed of any meetings of that Work Group
17 and would also want to make sure that you
18 provide us with any materials that you may
19 have.

20 Now I would point out to you that
21 the Work Group and the Board cannot deal
22 specifically with your case. That is, we do

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1 not deal with individual cases. We can deal
2 with general questions that emerge from your
3 claim. The Work Group or the Board cannot
4 deal specifically with your claim. So you
5 must understand that.

6 The claim, individual claims, are
7 dealt with by the regular process, which
8 involves initially the Department of Labor,
9 the referring to NIOSH for dose reconstruction
10 and so on. General questions emerging from
11 your claim, many of which you have talked
12 about and you have raised questions on the
13 evaluation report -- those questions we can
14 deal with.

15 Ladies, do either of you, the
16 petitioners -- do you have any comments before
17 we vote on this motion?

18 PARTICIPANT: Dr. Ziemer, I'd like
19 to make a few comments.

20 CHAIRMAN ZIEMER: Since you are not
21 the petitioner, you would have to defer those
22 to the public comment period, sir. Thank you.

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1 Either of the claimants -- or
2 petitioners wish to make comment? Okay, I
3 hear no comment.

4 Then, I will just call for a voice
5 vote. All in favor of the motion, aye.
6 Opposed, no. Abstentions?

7 MEMBER PRESLEY: I abstain.

8 CHAIRMAN ZIEMER: The motion
9 carries, and we will refer this to the TBD-
10 6000 Work Group to pursue.

11 We will go ahead and take our break
12 at this time, and then resume at 11:15 with
13 the Piqua Organic Moderated Reactor petition.

14 (Whereupon, the foregoing matter
15 went off the record at 10:49 a.m. and resumed
16 at 11:15 a.m.)

17 CHAIRMAN ZIEMER: We have a
18 petition for the Piqua Organic Moderated
19 Reactor, an SEC petition. We have an
20 evaluation report from NIOSH that will be
21 presented by Charles Nelson. I believe we
22 will have a petitioner on the line -- no, I

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1 believe the petitioner may be here in person
2 today. Yes, he is. Good. We will have a
3 chance to hear from the petitioner and then
4 have an opportunity to discuss this.

5 So let's begin with the NIOSH
6 presentation and Charles Nelson. Charlie?

7 MR. NELSON: Thank you, Dr. Lockey.

8 My name is Charles Nelson. I am here to
9 present the Piqua Organic Moderated Reactor
10 Special Exposure Cohort. Can you all hear me
11 okay? Okay.

12 So to give you a little facility
13 background, the Piqua Reactor was a 45.5
14 megawatt, and it was organically cooled and
15 moderated nuclear reactor. It was located in
16 Piqua, Ohio, which is about 30 miles north of
17 Dayton, Ohio.

18 It was part of the Atomic Energy
19 Commission's power demonstration project and
20 was initially operated -- or designed, built
21 and initially started up and operated by
22 Atomics International.

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1 Now eventually, the city of Piqua
2 workers took it over from Atomics
3 International. They were essentially working
4 under instruction with those individuals, and
5 eventually they operated the reactor from the
6 initial start-up, and it was under a contract
7 with the Atomic Energy Commission.

8 This organic coolant, which is kind
9 of unique -- it was a commercially available
10 hydrocarbon mixture. To give you a little
11 more facility background, the initial
12 criticality occurred in June of 1963, and the
13 final operations or when the reactor was
14 finally shut down for the last time was in
15 June of 1966.

16 A little more just broad background
17 information. It underwent decontamination and
18 decommissioning in February of 1969. So
19 hereforth, I will just call it D&D. I think
20 most people are familiar with that term.

21 When they did D&D the plant, they
22 removed this organic coolant, all the fuel.

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1 The support systems were also removed. What
2 they did was the reactor vessel was entombed
3 under sand concrete and was all seal-welded
4 shut. This was a below-grade reactor.

5 The initial Department of Energy
6 covered period was 1963 to 1966. So if you
7 look up a few bullets, you see it was
8 decommissioned in 1969.

9 When we first initially got the
10 petition, we were only able to evaluate this
11 facility to 1966 because that was the DOE-
12 approved covered period. However, we
13 submitted a letter through the Department of
14 Labor and went through the Department of
15 Energy, and they since revised the covered
16 period to include all the way through
17 decontamination and demolition. So now the
18 covered period would be January 1963 through
19 February 1966 -- make that '69, when D&D was
20 completed in February.

21 It should be noted that the
22 petitioner initially wanted to go beyond that

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1 1966 date, but with consultation with us, we
2 informed them that we would not be able to go
3 past that '66 date at the time because it was
4 a DOE-approved covered period. So initially
5 we did evaluate that period, but we retracted
6 the ER and expanded it through D&D.

7 Okay. Here is a picture of the
8 facility. On the right hand side you will see
9 the containment building. That containment
10 building houses the reactor and all the
11 reactor support systems. There is a fuel pool
12 inside there and a field handling system, and
13 in the middle -- that is the auxiliary
14 building.

15 The auxiliary building had some of
16 the support systems, like the purification
17 system which I will talk about, some waste
18 handling systems, as well as the support
19 personnel. The control room is also in there.

20 To the left, it is a 125 foot stack that
21 handled all the discharge ventilation for the
22 facility. It is always nice to see pictures.

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1 Okay. Petition overview. Let me
2 give you a little information on the petition.

3 We received it on August 21, 2008, and the
4 petitioner's proposed class definition was all
5 employees associated with reactor activities
6 who worked within and around the reactor dome
7 at the Piqua Organic Moderated Reactor during
8 the covered period from January 1, 1963,
9 through December 31, 1966. As I mentioned, we
10 did expand that period to include what we are
11 calling post-operations and D&D.

12 The evaluation report qualified on
13 December 19, 2008. The petitioner's basis was
14 that no records were kept on activities
15 related to the dismantling and that the former
16 Energy employee was not trained in the hazards
17 of the Piqua reactor. He also said no
18 monitoring devices were ever offered.

19 Now we have quite a bit of
20 documentation for Piqua, and it contains
21 monthly, semi-annual, and annual summary
22 reports and reactor operations reports, as

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1 well as some design documents, information on
2 shielding and radiation sources. However,
3 when we looked at the monitoring records, we
4 found that they were not complete for all time
5 periods. Therefore, the evaluation was
6 warranted.

7 Currently, the class evaluated by
8 NIOSH, as I mentioned, was all employees
9 associated with reactor activities who worked
10 within and around the reactor dome at Piqua
11 during the covered period January 1, 1963,
12 through February 28, 1969. So that is through
13 D&D.

14 We issued the evaluation report on
15 September 24, 2009. We did a pretty extensive
16 document search for this facility. We found
17 information from the Boeing Company, Santa
18 Susana Laboratory -- it was previously Atomics
19 International, they were the initial builder,
20 you might remember from the previous slide --
21 San Bruno Federal Records Center, the City of
22 Piqua, Office of DOE Legacy Management, and

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1 the petitioner also provided some
2 documentation.

3 We did interviews with nine former
4 workers, and we did perform some extra
5 interviews because we wanted to specifically
6 talk about post-operational period. So we did
7 quite a bit of interviews.

8 We also looked at the existing
9 claimant files and our research database, and
10 we went to both Cincinnati and Piqua Public
11 Library, as well as information from
12 Department of Labor and DOE OSTI.

13 Data capture efforts also included
14 NRC, Technical Information Bulletins and
15 Procedures, DOE site profiles, DOE
16 Comprehensive Epidemiological Data Resource,
17 CEDR, and Hanford DDRS. DOE opened that in
18 Nevada site office, as well as the Ohio
19 Department of Health.

20 As far as the number of claims for
21 this facility, there are [identifying
22 information redacted] claims, and out of these

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1 [identifying information redacted] claims,
2 dose reconstructions have been completed on
3 [identifying information redacted] of those
4 [identifying information redacted] claims.
5 [identifying information redacted] of the
6 [identifying information redacted] that were
7 completed were completed because individuals
8 worked at other facilities, and they were
9 compensated.

10 The internal dosimetry records in
11 those claims, there was zero with internal
12 dosimetry records. However, we did find one
13 with external dosimetry documentation.

14 As far as support systems, I will
15 give you a little idea of what the facility
16 entailed. It was a low carbon steel pressure
17 vessel. It was 85 1.9-percent enriched
18 uranium fuel elements, and they were aluminum
19 clad. So they were coated.

20 There was extensive shielding
21 around the reactor. There was a eight-foot
22 concrete bioshield, as well as 12 1/2 feet of

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1 moderator above the core. So there was quite
2 a bit of shielding, and I already mentioned
3 the fact of this unique moderator.

4 So to give you a little more
5 information about that moderator, it was
6 noncorrosive. It was homologous to benzene,
7 and it freezes at temperatures of about 278
8 degrees. So if it was released to atmosphere,
9 this stuff becomes like a wax-like substance.
10 It was kind of unique.

11 One of the problems they had with
12 it, though, is this intense radiation in this
13 core produced gases in high-low boiler. So
14 you are getting gases and particulates
15 constantly being produced, which ended up
16 being kind of the downfall, these
17 particulates.

18 There were some support systems to
19 control these problems. They were a
20 degasification and purification system. The
21 idea, again, was to treat the coolant to this
22 optimum level and to use vacuum distillation

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1 and filtrations to remove -- filtration
2 systems to remove gases and then capture these
3 solids.

4 Waste gas was captured, filtered,
5 and it was decayed in storage tanks for a
6 period of time, and eventually it was
7 discharged and monitored from the 125 foot
8 stack. The organic waste, which would be
9 these particulates, was captured also, stored,
10 monitored, and burned through a high
11 efficiency waste fire boiler. Then it was
12 filtered and monitored prior to discharge
13 through that 125 foot stack.

14 As you saw on that previous -- or a
15 previous slide, there is a containment around
16 the reactor. There was airlocks between that
17 reactor and the auxiliary building, and there
18 was a portal monitor when exiting the
19 containment.

20 I mentioned there was filters, but
21 there was pre-filters and absolute filters,
22 high efficiency filters before the stack, and

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1 within the containment, there was a remote
2 fuel handling system. I have a slide of that
3 here a little later, just to give you an idea
4 of it.

5 As far as radiation monitoring like
6 remote systems that you could observe in the
7 control room, there were 15 remote area
8 radiation monitors. So that is for area
9 radiation, and there was three continuous air
10 monitors. That would be for your particulate
11 air.

12 A little more dates of interest,
13 and I mentioned some of these, but just to put
14 it altogether. Initial criticality was in
15 June of 1963. They achieved full power in
16 January of 1964, and that is when you are
17 going to see individuals like Atomics
18 International operating the reactor, and you
19 will start seeing Piqua workers getting
20 incorporated and becoming the operators,
21 around January.

22 In 1966, the reactor scrambled and

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1 never operated again, and the problem that
2 they had was they had control rods that were
3 hanging up in this reactor due to this
4 radiolytic decomposition I mentioned. They
5 had particulate buildup in the core, and it
6 was hanging up some of these control rods and,
7 obviously, they decided that probably wasn't a
8 safe thing to have.

9 So they said, well, we need to
10 undergo what they called a recovery phase, and
11 the idea was let's clean this reactor up;
12 let's find out the extent of this. It was a
13 carbonaceous mass, as they called it. Then we
14 will go forward, and we will operate this
15 reactor again.

16 Well, as it turned out, they
17 decided that, no, we are not going to operate
18 this reactor again. The AEC decided we are
19 going to shut this down. So that occurred.
20 Sometime in '67, they made that decision, and
21 they started D&D in '67. Final D&D was
22 completed in February of 1969. That gives you

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1 kind of a good overall feel for some key
2 dates.

3 Now when we did this evaluation
4 report, we broke it down in two periods, and
5 you will know why later. But the operational
6 period was January of '63 through May 1, 1966,
7 and that was the criticality, the final
8 shutdown and this planning phase of what are
9 we going to do with this to clean up this
10 reactor; we are not actually doing any
11 activities to clean it up, but what are we
12 going to do.

13 So we coupled that into the first
14 evaluation period. The second evaluation
15 period was what we are calling the post-
16 operational period. That was May 2, 1966,
17 through February 28, 1969. That was what I
18 had mentioned before as the recovery phase and
19 D&D.

20 Okay. Activities and exposure
21 potential changed drastically between
22 operations and post-operations, which is why

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1 we are breaking it into these evaluation
2 reports.

3 During the operations period, most
4 of the activities were fairly routine, and
5 they used remote methods. Now when we got
6 into post-operations, things were more hands-
7 on. There was a lot of work with open systems
8 and work activities that involved increased
9 hazards and exposure potential.

10 As far as internal radionuclides of
11 interest, the primary sources of internal
12 exposure during post-operations were beta
13 gamma emitting radionuclides from five
14 sources, and they were activated impurities in
15 the coolant; activated corrosion products;
16 there was activation in the aluminum
17 cladding/steel; and there was tritium produced
18 by coolant activation or fission; and carbon-
19 14 from coolant activation. So that is your
20 internal radionuclides.

21 As far as the available internal
22 monitoring data that we have for this

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1 operational period, like I said, we are
2 breaking it down into two periods. Initially,
3 prior to the start-up of the reactor, they did
4 a final safeguard summary report.

5 It calculated what would be the
6 maximum air concentrations, and their
7 calculations show that everything should be
8 less than a maximum permissible concentration
9 for operations. They were required to follow
10 10 CFR 20 and 10 CFR 70.

11 The supporting documentation that
12 we found while looking at all these records
13 were monthly, quarterly, and semi-annual
14 reports of reactor plant conditions. We found
15 these reports that covered the entire 32-month
16 period when the reactor operated.

17 In these documents we found
18 information such as stack effluence
19 monitoring, environmental monitors, on-site
20 air sample reports. Generally, what it gave
21 us is the maximum or average values.

22 All the data that we found in these

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1 documents were all less than a maximum
2 permissible concentration for the most
3 restrictive radionuclide, which was cobalt-60.

4 We interviewed all these
5 individuals, and the consensus we have from
6 everybody is this was a super clean plant,
7 really never had too much problems during
8 operations, and that was consistent across the
9 board with these workers.

10 When we looked in these progress
11 reports, we also found information like no
12 personnel contamination or inhalations were
13 observed during this period of time. It would
14 say information -- this is a quote, "Airborne
15 activity in the containment building has not
16 exceeded that normally observed from natural
17 background."

18 We did not find any bioassay data
19 except for in one monthly report there was a
20 bioassay performed on a group of workers who
21 worked around the reactor for about a week,
22 and it said the bioassay showed no positive

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1 results for tritium or net beta. This is all
2 during the operational period.

3 We did find evidence of two spills,
4 and one of them was found in a operational
5 report. There was a soot collection bag from
6 the waste-fired boiler system. It came loose,
7 and it spread contaminated soot, and the
8 highest activity was -- it wasn't a very
9 significant spill. It was less than 400 dpm
10 per 100 square centimeters, and that monthly
11 report concluded that there was no detectable
12 contamination or inhalation of contamination.

13 Then the other one, number 2, was -
14 - we saw this in one of the interviews, and
15 the individual said that a main coolant pump
16 that was idle, and there was a loose
17 connection and somebody improperly positioned
18 a valve, and some of that coolant blew out
19 onto the floor.

20 Then, he said, the coolant quickly
21 froze up as soon as it was exposed to room
22 temperature. Remember, at 278 degrees it

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1 becomes a solid. I asked him how he cleaned
2 it up, or we asked him how he cleaned it up.
3 He said they just scraped it up. It was a
4 pretty simple process.

5 Now the nature of the coolant to
6 become solid at 278 actually is pretty helpful
7 for contamination control and airborne
8 controls. As you might imagine, if it freezes
9 up like a wax, it is not going to spread into
10 the air too readily.

11 Okay. External radiation sources
12 for the operational period were reactor
13 support systems, coolant lines, filters, and
14 irradiated fuel and core components, as well
15 as when they did radiation check calibrations.

16 During shutdowns and maintenance,
17 there would be a potential for beta exposure.

18 One of the things that the worker said,
19 though, was that -- a radiation control
20 technician -- is that when they did
21 maintenance, they would shut down the system.

22 They would go have a cup of coffee, let this

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1 short-lived beta decay, and then generally it
2 was not an issue to work in these radiation
3 fields. The beta dose would die off pretty
4 rapidly.

5 Neutron potentials were during the
6 operational -- while the reactor was
7 operating. When the reactor was shut down,
8 there was no neutrons except for if they were
9 doing instrument source checks.

10 We talked to the health physicist
11 and rad control tech, and they stated that
12 they never saw any neutron levels above
13 detectable limits in the facility except for
14 when they were doing source checks on their
15 long counter.

16 As far as X-rays, we didn't find
17 any information that X-rays were performed.
18 However, one of the interviewees said that
19 they had annual physicals and that X-rays were
20 performed.

21 Okay. Available external
22 monitoring data. First of all, we did not

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1 find dosimetry results. Information we have
2 is that it went to Landauer. We contacted
3 Landauer. They didn't have any luck finding
4 any documentation related to Piqua for
5 external dosimetry. However, we do have AEC
6 annual summary reports, and these were for
7 every year from 1963 through 1968.

8 Other than that, we did find some
9 summary reports in one of the claimant's files
10 for '63, and what is not on that slide is
11 there was his report for '64 and '65. It
12 included his whole period that he worked. He
13 actually worked for Atomics International.

14 There were also monthly, quarterly,
15 and semi-annual reports containing reactor
16 plant conditions and dose information. It
17 would actually give you the highest individual
18 exposed during this semi-annual period was,
19 you know, 240 millirem.

20 When we looked at all of this
21 information in conjunction with one another,
22 it all agreed and that, actually, the AEC

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1 annual summary report looks like a very
2 accurate document.

3 Here is like a summary of the AEC
4 external dose for '63 through '68. What it
5 has is that the number identified as not
6 monitored in all cases was zero. Our
7 information from the interviews was that
8 everybody that went into the facility was
9 monitored. However, they backed off on the
10 external monitoring for the administrative
11 people to quarterly rather than monthly.

12 The next column over, it says the
13 number identified as monitored. It ranged
14 anywhere from 36 to 50 people, and they bin
15 the dose that the individuals received as zero
16 to one rem, which in the majority of cases
17 most people got zero to one rem. However, in
18 '67 and '68, which is during this recovery
19 period, you are going to see that there was
20 [identifying information redacted] individuals
21 for '66 and [identifying information redacted]
22 for '67 where it was one to two rem.

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1 This is a picture of the airlock
2 going through between the containment and the
3 auxiliary building. So everybody likes
4 pictures. Here is another picture of the
5 remote fuel handling system.

6 So this is what they used during
7 normal operations if they had to handle fuel.

8 We will find out a little later they used
9 some different systems during post-operations.

10 This is a picture of the control room, some
11 workers in there monitoring different
12 components.

13 So based on all this, NIOSH has a
14 methodology for dose reconstructions. For
15 internal dose, we feel that assigning a
16 maximum permissible concentration for the
17 entire operational phase using cobalt-60 is a
18 claimant favorable method.

19 What we would do is look at each of
20 those internal radionuclide groups, and we
21 would assign a portion of the MPC to each of
22 those based on their proportion, if they

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1 exist, based on the data that we have for the
2 coolant and the residues.

3 Then with each of those groups, the
4 radionuclide contributing the most dose to the
5 organ of interest will be used for the
6 claimant favorable assignment of dose.

7 From an external standpoint, we
8 feel that the AEC summary report is an
9 accurate document. We would use the highest
10 dose. In other words, for all years except
11 for '66 and '67, we would assign one rem
12 annually, and two rem for '66, and it should
13 say '67 also.

14 Regarding beta dose, we feel we can
15 assign a claimant favorable ratio to be at 40
16 to one for a direct contact with your hands,
17 all the way down to five to one. That was
18 based on some information we had from these
19 summary reports.

20 We had paired measurements of gamma
21 exposure rates compared to beta exposure
22 rates. They were actually lower than that,

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1 but we raised them up a little bit to be
2 claimant favorable.

3 As far as neutron assignment, we
4 feel application of a one to 10 neutron to
5 photon ratio would be accurate, and that is
6 based on some monitoring measurements that
7 were paired around the main coolant lines,
8 coming through the bioshield. There were some
9 paired measurements with photons and neutrons,
10 and it was less than one to 10, but we used
11 the conservative one to 10 ratio.

12 With regard to medical X-rays, we
13 feel OTIB-0006 would be the method to use to
14 reconstruct medical X-ray dose.

15 The evaluation process is a two-
16 pronged test established by EEOICPA, and the
17 questions are, is it feasible to establish the
18 level of radiation doses of individual members
19 of the class with sufficient accuracy, and is
20 there a reasonable likelihood that such
21 radiation doses may have endangered the health
22 of members of the class.

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1 NIOSH found that the available
2 monitoring records, process descriptions, and
3 source term data are adequate to complete dose
4 reconstruction with sufficient accuracy during
5 the operational period for the evaluated class
6 of employees from January 1, 1963, to May 1,
7 1966.

8 Therefore, health determination --
9 health endangerment determination is not
10 required. So this is just a table showing, we
11 feel, internal and external doses can be
12 reconstructed in a feasible manner.

13 We did some sample dose
14 reconstructions, two of them, in fact, for
15 Piqua, and for that time period January 1,
16 '63, through May '66. There's the assumptions
17 we made. It was a [identifying information
18 redacted] born in [identifying information
19 redacted]. This is a [identifying information
20 redacted] cancer, [identifying information
21 redacted] of the [identifying information
22 redacted], and it was diagnosed in

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1 [identifying information redacted], and the
2 external dose, internal dose, and medical dose
3 totaled up to 23.26 rem. The probability of
4 causation was 62.33 percent.

5 The other sample dose
6 reconstruction we did was for a -- same
7 individual. However, this individual had a
8 [identifying information redacted] cancer with
9 the same diagnosis date of [identifying
10 information redacted], total doses assigned
11 were 17.073 rem, gave us a probability of
12 causation of 28.86 percent.

13 So that covers the operational
14 period. Now the post-operational period began
15 on May 2, 1963, and this is when they started
16 cleaning up this carbonaceous mass.
17 Activities became, actually, rather intrusive
18 as compared to the operational period.

19 The exposures' potential changed
20 drastically when the Piqua site went from
21 operational activities to recovery and D&D.
22 In the operational phase it was mostly closed

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1 loop operations. Then in the post-operations,
2 the reactor vessel was open quite a bit, for a
3 large majority of the time, in fact, and there
4 was demolition work.

5 The reactor vessel and the support
6 systems were open to containment, and many of
7 the activities were non-routine and more
8 invasive than operations. I think I have said
9 that enough in different ways.

10 During post-operations, just to
11 give you an idea of the activities that
12 occurred, they removed the reactor vessel
13 head, and it was open to containment for, like
14 I said, a long period of time. The initial
15 purpose of this was to cool down the reactor.

16 Then they started removing the fuel and
17 control rods.

18 You know, I showed that fuel
19 handling system earlier. Well, they started
20 using a puller crane, which is just a standard
21 type of -- I don't know if it is a jib crane
22 or a particular crane that they used in the

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1 containment, and the reason they did that is
2 because they were trying to measure all of the
3 forces it needed to exert on these control
4 rods to pull these because they were having
5 some difficulty due to this carbonaceous mass
6 being built up in there. So that was a
7 nonstandard technique that, certainly, would
8 have more exposure potential.

9 Also, after they removed the fuel
10 and the control rods, they did a detailed core
11 inspection, and they profiled this
12 carbonaceous mass. It was a big chunk of
13 carbon, and you could see where the fuel rods
14 and the control rods were sitting around it.
15 We actually have pictures of that, but I
16 didn't provide them.

17 They sampled and handled the scoped
18 mass. Something to mention, they were in many
19 cases using remote methods to remove this
20 carbon mass. They were using a periscope.
21 However, some of the claimants did
22 specifically state they remember looking

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1 directly into the reactor without benefit of
2 any shielding. We didn't find that in the
3 documents, but the individuals made that
4 statement.

5 Also at one point, they drained the
6 coolant in the reactor, and they worked above
7 the reactor core, and they also removed in-
8 core components like the grid plate and
9 support barrels. These were highly
10 radioactive and had pretty high dose rates.

11 They actually had to go inside of
12 the reactor core on a work platform and do
13 some modifications, such as some air drilling
14 on different components. So they actually
15 worked within the reactor.

16 During the D&D activities, they did
17 system dismantling and size reduction using
18 mechanical and flame cutting methods. I know
19 they used a regular -- like a Porta-band as
20 well. I don't know if it was a Porta-band,
21 but I just know that everything wasn't done
22 using flame cutting methods, but some of it

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1 was mechanical.

2 They cut and sealed all of the
3 reactor outlets and all the pipes that
4 penetrated the bioshield.

5 So internal data available through
6 the post-operational period. Again, we have
7 no bioassay nor did we have any area air
8 sampling reports. There was very limited air
9 data for this period of time.

10 We only found one air monitoring
11 result. I think it was a stack monitoring
12 result and an environmental one during that
13 33-month period. So this is post-operations
14 and D&D.

15 Now most of the interviewees,
16 again, said it was a very clean plant, and
17 there was never known to be really any
18 airborne issues. I did look at the interview
19 for the health physicist, and he felt that
20 during the post-operations there could have
21 been some potential for airborne
22 contamination, specifically like size

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1 reducing.

2 There was another interviewee that
3 stated, if there was any time in which
4 radiological hazards were present at levels of
5 concern, it would have been after operations.

6 External data for post-operations.

7 It is very similar to what we had for
8 operations. We have these AEC summary
9 reports, and we did have some exposure data in
10 the reports as well, radiation exposure data.

11 Now the concerns we have for the
12 post-operational period is the fact that a lot
13 of these activities were non-routine, and they
14 had documented a potential for increased
15 radiological hazards. This is all coupled
16 with a lack of airborne radioactivity data.

17 There was hands-on work, as I
18 mentioned before. A lot of the systems were
19 open, and they had to use a pretty extensive
20 effort to remove that coke mass within the
21 reactor, and again I mentioned we are not sure
22 if it was done remotely. From what we read,

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1 mostly it was done remotely.

2 I mentioned the removal and
3 modification of the core components, and there
4 was also a discussion. We found some verbiage
5 in the health and safety representative where
6 he expressed concern with regard to internal
7 exposure potential during this period, and he
8 quoted in numerous operations considerable
9 contamination will result.

10 There was a discussion for the need
11 for hood-like ventilation during welding
12 activities, and a need for air supply suits.
13 The health physicist for the facility said
14 that, to his knowledge, there was never any
15 ventilation used during D&D or post-
16 operations, and he said, as far as respiratory
17 protection -- he said maybe a half-face
18 respirator. So we didn't see the use of air
19 supplied or SCBAs during the post-operational
20 period.

21 So as far as feasibility of
22 internal dose for post-operations, based on

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1 the absence of internal monitoring data and
2 the exposure potential during the post-
3 operational period, NIOSH's evaluation
4 determined that it is not feasible to estimate
5 radiation dose for all members of the NIOSH
6 evaluated class with sufficient accuracy for
7 the entire evaluated period of May 2, 1966, to
8 February 28, 1969.

9 Due to NIOSH's finding regarding
10 inability to bound internal dose for post-
11 operations, we didn't do an exhaustive -- we
12 didn't fully evaluate reconstructing the
13 external dose. However, we concluded that we
14 can partially reconstruct external dose,
15 including X-ray exposures, in support of any
16 partial dose reconstructions and
17 nonpresumptive cancers.

18 Like always, if we come up with any
19 personal monitoring data that becomes
20 available afterwards, then we will use those
21 for the partial dose reconstructions.

22 So this table here shows that

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1 internal dose reconstruction is not feasible,
2 whereas external dose reconstruction is
3 feasible.

4 The evidence reviewed in this
5 evaluation indicates that some workers in the
6 class may have substantial accumulated chronic
7 radiation exposures through intakes of
8 radionuclides from radioactive materials.

9 Consequently, NIOSH is specifying
10 that health may have been endangered for those
11 workers covered by this evaluation when
12 employed for a number of workdays aggregating
13 at least 250 workdays within the parameters
14 established for this class or in combination
15 with workdays within the parameters
16 established for one or more other classes of
17 employees in the SEC.

18 Therefore, NIOSH's proposed class
19 is as follows. All employees of the
20 Department of Energy, its predecessor
21 agencies, its contractors and subcontractors
22 who worked at the Piqua Organic Moderated

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1 Reactor during the covered period of May 2,
2 1966, through February 28, 1969, for a number
3 of workdays aggregating at least 250 workdays
4 occurring either solely under this employment
5 or in combination with workdays within the
6 parameters established for one or more other
7 classes of employees in the SEC.

8 That concludes my presentation.

9 CHAIRMAN ZIEMER: Thank you for
10 that presentation. Let me begin the questions
11 with -- well, I have several.

12 Did I understand that the
13 biological shield was not dismantled? Was it
14 left in place?

15 MR. NELSON: That is true. The
16 biological shield -- it was a 8 1/2 foot
17 concrete shield that surrounded the reactor.
18 Yes, it was left in place.

19 CHAIRMAN ZIEMER: So there was no
20 cutting on that during the shutdown?

21 MR. NELSON: No.

22 CHAIRMAN ZIEMER: Okay.

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1 MR. NELSON: They actually did some
2 sampling. They looked at the activation
3 products.

4 CHAIRMAN ZIEMER: Right. You
5 mentioned a search of Landauer database. Did
6 you have evidence that Landauer was the film
7 badge supplier?

8 MR. NELSON: We found that in
9 documentation that Landauer was the film
10 supplier. As far as when we contacted
11 Landauer and they did a search for us, they
12 did not locate any Piqua records.

13 CHAIRMAN ZIEMER: Okay. That
14 point, to me, is a little surprising because
15 Landauer maintains -- I mean, is known to
16 maintain virtually all records of all
17 contracts that they have had over the years.

18 For example, we found that they had
19 the badges for General Steel Industries when
20 we looked into that. I know from first hand
21 accounts -- I mean in personal experience --
22 that they maintain those records.

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1 So if they were the vendor, it is
2 certainly surprising, and it makes one wonder
3 if we were looking or you were looking -- or
4 maybe you looked under all the possible vendor
5 names --

6 MR. NELSON: Yes, I think --

7 CHAIRMAN ZIEMER: -- the common
8 vendor names Piqua, AEC, or Stuart Hinnefeld
9 maybe has an answer to that.

10 MR. HINNEFELD: We have -- with
11 respect to Landauer records, we have entered
12 into a contract with Landauer this year for
13 them to produce essentially a comprehensive
14 index of what records they have because
15 heretofore we would ask them what about this
16 site or these sites, and they would conduct
17 what was essentially a manual search of these
18 microfilm cabinets to see if they found the
19 records or not.

20 Since we have placed this contract
21 with them to produce this index, they are
22 doing essentially the systematic search, and

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1 they are recording all their customers and
2 certain data associated with customers to
3 provide to us, so that we can at some point --
4 we will have that comprehensive listing of
5 what records they have. We won't have to make
6 these individual -- ask questions and then
7 have them search each time.

8 I think I might want to point out,
9 though, that if we do, in fact, get film badge
10 data from Landauer, that won't really affect
11 the --

12 CHAIRMAN ZIEMER: No, I understand.

13

14 MR. HINNEFELD: It would improve
15 the external reconstructions perhaps.

16 CHAIRMAN ZIEMER: Right. I
17 understand that. I was just wondering about
18 that part of it. Thank you, Stuart.

19 MR. NELSON: Yes, we had a real
20 hard time during the evaluation with the fact
21 that we couldn't find dosimetry records, as
22 well as all these internal dosimetry records.

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1 CHAIRMAN ZIEMER: Right. I do know
2 that the -- I'm familiar with quite a few
3 reactors and their operations, and the NRC or
4 its predecessors were very careful to examine
5 those actual records during inspections so
6 that it would be very difficult to have an
7 annual summary of the type you had that was
8 somehow different from the actual records,
9 just as a point of information.

10 Also, did this plant issue
11 radiation work permits at that period of time?

12 MR. NELSON: They had work permits,
13 and the health physics technician was not
14 there all the time. He worked on day shift,
15 and generally he would review any work that
16 was going to be done, but most of the work was
17 done on day shift.

18 CHAIRMAN ZIEMER: Most reactors --
19 and I don't know; this is an early reactor
20 and, actually, a very small power reactor, but
21 the normal practice for a power reactor is
22 what is called the radiation work permit, and

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1 that would be especially the case during D&D
2 operations where every operation requires a
3 work permit that specifies who, dose limits in
4 terms of time, protective equipment, and
5 dosimetry.

6 So the reason I ask that, that
7 would give a good handle on D&D operations, if
8 they were using radiation work permits. That
9 would be an important piece of information.

10 Now this is -- these years are sort
11 of early in terms of what was considered good
12 practice. So maybe they weren't doing that,
13 but I simply raise that.

14 MR. NELSON: The biggest issue we
15 had is the fact that we couldn't locate any
16 job-specific monitoring, and we knew that the
17 activities were kind of spread out in the
18 post-operational period, and there was a lot
19 of different activities.

20 Things seemed to be very organized
21 during the operational period. Then you got
22 into this post-operational period, and they

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1 did some of the work prior to a
2 decommissioning plan being developed, and it
3 didn't seem to flow the work as well as it did
4 during the operational period.

5 CHAIRMAN ZIEMER: Right. Well, in
6 fact, during decommissioning of a plant the
7 jobs are very different than they are during
8 operation. In fact, many plants bring in
9 outside contractors for decommissioning
10 because a reactor operator, for example, who
11 is very specifically trained may not be the
12 one you want doing decon work, or
13 decommissioning work. Well, that is just a
14 side comment.

15 Many reactors have maintenance
16 schedules or shutdowns where they bring in
17 outside, what are commonly called, rent-a-
18 techs. Would you know if that was or was not
19 the practice?

20 MR. NELSON: During the operational
21 period, there was one HP and one rad control
22 technician. To our knowledge there wasn't any

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1 contractors that came in during that period of
2 time, other than Atomics International who was
3 the initial operator. So I'm not aware of
4 that or in the D&D. My understanding was the
5 City of Piqua workers and the documentation
6 that I have seen is that they did the work,
7 but I don't know specifically if contractors
8 did come in. I didn't see that anywhere.

9 CHAIRMAN ZIEMER: Okay. One final
10 question. It is very common in reactor fuel
11 elements that the surfaces are contaminated
12 with what sometimes is called tramp uranium.
13 These are clad elements.

14 MR. NELSON: Uranium clad elements,
15 yes.

16 CHAIRMAN ZIEMER: But fuel elements
17 may become contaminated in the process of
18 being made by the vendor and shipped, and it
19 is very common for reactors to have such
20 elements in the system, and the surfaces --
21 there are fission products generated on the
22 surface in the tramp uranium, and it gets into

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1 the coolant system. Would you know if that
2 was or was not the case?

3 MR. NELSON: Yes, we do. There
4 was actually a survey, and it was specifically
5 stated that there was never any alpha
6 contamination found, even in the final D&D
7 survey, on any components, and that they
8 concluded that none of the fuel had been
9 breached.

10 CHAIRMAN ZIEMER: Very good. Thank
11 you. Additional? Dr. Poston?

12 MEMBER POSTON: I hate to get hung
13 up on examples, but your first example shows
14 an external dose of 22-plus rem for this
15 period when your summary data showed roughly
16 one rem per year, and I'm a little confused
17 about that.

18 I need to understand what kind of
19 assumptions you made because even in the '60s
20 they used multiple filters on badges to
21 determine deep dose, shallow dose, separate
22 beta from gamma and so forth. I need to

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1 understand how you got from one per year to 22
2 total.

3 MR. NELSON: Okay. The data that
4 we had that we know is good, that came from
5 AEC, is just a deep dose. And as far as the
6 shallow dose, we do know that they had a beta
7 component on their dosimeters. However, we
8 don't have any beta dosimetry results. We did
9 have a few paired measurements of beta and
10 gamma, and they were on the order of, I think,
11 upwards of three to one ratio.

12 So we felt that a five to one ratio
13 would bound the beta dose. So the higher
14 external dose is essentially coming from a
15 beta dose.

16 MEMBER POSTON: Did you add the
17 neutron dose at all?

18 MR. NELSON: Yes, we did, at a one
19 to 10 ratio.

20 MEMBER POSTON: How did you justify
21 the neutron dose?

22 MR. NELSON: The neutron dose was

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1 based on some other paired measurements. We
2 used the highest ratios that we found, which
3 were the exit piping from the reactor, and we
4 felt it reasonable and that could bound it
5 with a one to 10 ratio.

6 CHAIRMAN ZIEMER: Let me follow up.
7 The 22 rem -- was that considered a skin
8 dose?

9 MR. NELSON: Most of that was skin
10 dose.

11 CHAIRMAN ZIEMER: And the annual
12 summary records were deep dose, whole body
13 values?

14 MEMBER POSTON: That's what he
15 said.

16 CHAIRMAN ZIEMER: Right. So maybe
17 the comparison is not the right one here.

18 MR. NELSON: Most of that dose is
19 coming from shallow dose.

20 CHAIRMAN ZIEMER: This was, I
21 think, BCC in the temple -- what is that
22 cancer? That is basal cell carcinoma of the

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1 temple. So it is skin cancer, skin dose.

2 MR. NELSON: Right.

3 CHAIRMAN ZIEMER: I guess, Dr.
4 Poston, I am saying maybe the AEC summary was
5 a summary of whole body doses and -- I don't
6 know -- maybe didn't include the skin.

7 MR. NELSON: I don't remember the
8 exact number of years, but as an example, if
9 an individual was monitored -- or worked for
10 three years, you would give them one rem each
11 year, unless they worked in '66 and '67, in
12 which case you would give them two rem for
13 those years. Then you would --

14 CHAIRMAN ZIEMER: For skin dose?

15 MR. NELSON: Yes.

16 CHAIRMAN ZIEMER: Or shallow?

17 MR. NELSON: For all cancers. Then
18 as far as a skin dose, you would use a five to
19 one ratio. So it would be five times higher
20 for beta dose. One-fifth is only coming from
21 deep dose, whereas shallow doses constitute a
22 majority of the dose for skin cancer.

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1 CHAIRMAN ZIEMER: Dr. Poston, did
2 that answer your question?

3 MEMBER POSTON: Yes, it answered my
4 question.

5 CHAIRMAN ZIEMER: Okay, thank you.

6 Other questions on this one? Mark has some
7 questions. He is collecting his thoughts.
8 You need help in collecting them?

9 MEMBER GRIFFON: During the
10 operational period, were there any incidents
11 or accidents? I think you went through that,
12 but I was probably reading.

13 MR. NELSON: Yes, there were two of
14 them, and one of them was in an operational
15 report, and there was -- it was a bag that
16 came off the waste fired boiler, and there was
17 a clamp of sorts that fell off, and it spilled
18 on the floor. So this was residue, and it was
19 less than 400 dpm per 100 square centimeters.

20 That was the maximum contamination level, and
21 it concluded that there were no internal
22 exposures as a result of that, or no

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1 contamination events.

2 The other one was an idle main
3 coolant pump, and somebody, I think,
4 improperly operated a valve, and they actually
5 spilled some organic coolant on the floor.
6 That was the only two incidents that we were
7 aware of during the operational period.

8 MEMBER GRIFFON: I mean, if I'm
9 understanding this right, you are proposing
10 for the post-operational period to add the
11 class, but the operational period -- I'm not
12 clear right now what your approach is for
13 reconstructing internal, albeit small, likely
14 as you described. But how are you going to
15 reconstruct internal and external during the
16 operational period?

17 MR. NELSON: During the operational
18 period, we proposed to assign a maximum
19 permissible concentration for that entire
20 period that the individuals worked, and that
21 is based on the fact that all the
22 documentation that we have shows that it never

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1 exceeded a maximum permissible concentration.

2 MEMBER GRIFFON: So MPC is set for
3 the time period and --

4 MR. NELSON: Yes. Yes.

5 MEMBER GRIFFON: Okay. And then
6 for external?

7 MR. NELSON: External dose -- that
8 is based on the AEC summary reports, which
9 will be one rem per year, '63 through '65, two
10 rem for '66, two rem for '67, and one rem for
11 '68.

12 MEMBER GRIFFON: And then going to
13 the reports, in one of them I see it says "our
14 records indicate that 31" -- and I think it
15 says AI --

16 MR. NELSON: Atomics International.

17 MEMBER GRIFFON: Oh, okay, Atomics
18 International "personnel assigned to PNPf wore
19 film badges at least one time during 1963."

20 I saw the summary, too, and for the
21 most part they say all workers were monitored,
22 but all in these ones -- I mean, I scanned

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1 through these. All is around 40 workers, I
2 think. Is that the whole workforce?

3 MR. NELSON: I think for that year
4 it was 42 workers.

5 MEMBER GRIFFON: Forty-two, I
6 believe, and then one year it was --

7 MR. NELSON: What it was is Atomics
8 International -- they were sending a lot of
9 engineers to and from. So they may have only
10 been monitored for a portion of that year. It
11 would have been because they weren't there the
12 whole year.

13 MEMBER GRIFFON: Okay.

14 MR. NELSON: That came out of that
15 claimant's files, and in summary what it said
16 is that out of the 31 people, 30 of them had
17 zero rem beta, zero rem gamma, and zero
18 neutrons, and only one individual had 60
19 millirem for '63.

20 MEMBER GRIFFON: So if they were
21 there and working, you are confident that they
22 were being monitored?

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1 MR. NELSON: Based on our
2 information that we had and the interviews
3 that we performed.

4 MEMBER GRIFFON: It wasn't like
5 they were just periodically monitoring certain
6 people. It wasn't any kind of cohort
7 monitoring or anything like that?

8 MR. NELSON: Our understanding is
9 that everybody that worked at the facility,
10 including the administrative people, were
11 monitored, just the frequency of badge
12 exchange. As time went on, they reduced that
13 for the administrative workers.

14 MEMBER GRIFFON: Thank you.

15 CHAIRMAN ZIEMER: Brad Clawson?

16 MEMBER CLAWSON: Do we have any
17 information of did they have any monitoring
18 system on the stack? Do we know what went
19 out?

20 MR. NELSON: Yes. They had a
21 particulate monitor as well as a gaseous
22 monitor.

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1 MEMBER CLAWSON: And what do we
2 see?

3 MR. NELSON: That was some of the
4 results that I went over that they had never
5 exceeded a maximum permissible concentration
6 on the outlet, the exit of the stack. So that
7 is not necessarily on the ground where the
8 exterior workers are, but coming out of the
9 stack itself. And we looked at the capability
10 of those instruments, and based on some of the
11 documentation, they could see a couple of
12 orders of magnitude more restrictive air
13 limits than the MPC.

14 So they had the capability to see
15 the MPC.

16 MEMBER CLAWSON: Okay. You made a
17 statement earlier that one of the people said
18 that they actually had the reactor core top
19 off, and they were looking straight down into
20 it and made the comment that -- you know, just
21 to say, when they were pulling those, they
22 would have been directly over that. Now is

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1 that -- that's correct, isn't it?

2 MR. NELSON: No. During the
3 operational phase, which we feel we can
4 reconstruct doses, they used that remote fuel
5 handling machine. So everything was done
6 remote. If you saw that picture, there was
7 two guys standing off at a distance, and we
8 even have details of how much exposure those
9 individuals had on periodic occasions.

10 Now post-operations when they had
11 this issue with this carbon mass in the
12 reactor and they were having difficulty
13 pulling those, they used the puller crane for
14 that, and that is where we feel, you know,
15 there could be some exposure potential, be it
16 maybe external, but the fact that they were
17 monitored, we felt it was adequate.

18 Now we didn't fully evaluate that
19 period from an external standpoint, but we
20 feel what we have there is claimant favorable.

21 MEMBER CLAWSON: Okay.

22 CHAIRMAN ZIEMER: Do you include

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1 the guards? Did they use their own guards or
2 did they --

3 MR. NELSON: I am unsure about
4 guards, to be honest. It would include the
5 guards.

6 CHAIRMAN ZIEMER: Well, all
7 reactors have guard gates. You can't get into
8 the facility.

9 MR. NELSON: Right.

10 CHAIRMAN ZIEMER: I assume this is
11 a similar thing. And most of the ones I am
12 familiar with do not use their own guards.
13 They contract that out, and, depending on the
14 particular duties, some guards themselves are
15 only at the gates. They themselves cannot get
16 into the facilities. LaVon, can you speak to
17 that? I'm just wondering if there is another
18 -- and would they be considered subcontractors
19 and be covered by this?

20 MR. HINNEFELD: They are covered by
21 this. It is considered a DOE facility in the
22 class definition that is recommended. It is

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1 all DOE employees, contractors, and
2 subcontractors. So they would be included.

3 CHAIRMAN ZIEMER: Even if they
4 couldn't get into the facility? I mean, our
5 case is where the guards are at the gates, and
6 that is where they are. They can't go in?

7 MR. HINNEFELD: I don't know that
8 we could discern whether they were --

9 CHAIRMAN ZIEMER: You can't discern
10 that. That is what I meant.

11 MR. HINNEFELD: -- whether they
12 were -- no, we could not.

13 CHAIRMAN ZIEMER: Thank you. Yes.
14 Phil.

15 MEMBER SCHOFIELD: A number of
16 facilities, the guards are actually federal
17 employees, and quite often in a lot of these
18 facilities you will find the guards had punch
19 clocks. They had time clocks they had to
20 punch. Quite often, they would go in and make
21 sure critical instrumentation, the doors were
22 locked. So there is a good possibility some

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1 of them did go in.

2 CHAIRMAN ZIEMER: Yes, and it
3 certainly would depend on the facility and
4 what they were allowed to do. Certainly, in
5 the federal labs the function of the guards is
6 very different than at a nuclear power plant
7 often. So that is why I asked the question,
8 whether they had that class, and whether or
9 not we knew whether they could go in or not.
10 Apparently not, or we don't know.

11 Let's see. Brad, additional
12 question? No? Dr. Poston, additional
13 question? Other questions?

14 The recommendation -- well, we want
15 to hear from the petitioner, who is here in
16 the room. So I will ask the petitioner to
17 make comments. Well, if you are going to
18 identify yourself for the record, I guess you
19 are not required to, and you are certainly
20 welcome to use the podium. But if you are
21 agreeable you can identify yourself and then
22 make your comment.

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1 MR. DECKER: Can everybody hear me?

2 I am Richard Decker. I am the petitioner,
3 and the claimant was my step-father.

4 I would respectfully ask the
5 Board's favorable condition to SEC-00126. The
6 claimant in this case was asked to perform his
7 duties without the knowledge or the training
8 of the dangers of exposure to materials used
9 at this facility in question.

10 His suffering over the years as a
11 direct result of the working in and around the
12 facility is beyond description. On the
13 claimant's death bed, he wished me to pursue
14 this action as a final request of a man dying
15 from such effects of such exposure.

16 Now my brothers and I have been
17 abused by exposure to another kind of danger,
18 the bureaucracy of government at its worst.

19 The journey began some seven years
20 ago with the original request being submitted
21 to the Department of Energy. Then the
22 Department of Labor somehow got involved, and

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1 here we all are here in this process. What
2 kind of Congressional act would have ever been
3 set up to care for the injured and families of
4 the injured that would have dragged such an
5 action out to seven years and counting?

6 I have heard from many I have
7 spoken to that all that is expected of
8 government. Well, as a retired military
9 member, a part of government, I would have
10 lost my job for such an abuse of law.

11 So we are here now awaiting another
12 decision, and then it will go back to the
13 Department of Labor to await another set of
14 ridiculous hoops for my brothers and me to
15 jump through, just to get what is rightfully
16 ours.

17 Oh, you say, what could be so
18 ridiculous? Well, what about having to
19 provide a newspaper article to the Department
20 of Labor when they refused to acknowledge the
21 legal document that I provided? Oh, no, you
22 say, I must be mistaken. Well, they also said

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1 a photo of the claimant at my wedding would
2 have worked as well, but they would not accept
3 the legal document that I had already provided
4 them.

5 This kind of waste, fraud, and
6 abuse has been going on for seven years now
7 and counting, and I took all of this and more
8 to the Ombudsman for this Act and was assured
9 that he would share this story with Congress
10 but never received correspondence from him to
11 indicate if that information ever was shared
12 with them.

13 Well, now we stand here in this
14 facility with the only positive organization
15 in this whole mess, NIOSH. This organization,
16 with whom I have communicated and shared my
17 frustrations with, has been, without a doubt,
18 the single positive group of men and women
19 throughout this process.

20 From the first phone call and
21 letter, I have been made to feel that somebody
22 out there does love their jobs and want to do

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1 it in a professional manner. At no time did
2 any I have been in contact with show anything
3 but respect and professionalism.

4 Although it still remains a long
5 process, they have been there doing their job,
6 their best with the information that was
7 provided. I wish to thank publicly all those
8 which have put so many hours of work into this
9 petition that now we seek a positive outcome.

10 Without you folks here, justice
11 would never have a chance, and the claimants
12 and their heirs wouldn't have a chance to
13 benefit from what was to be a kind
14 compensation act that has turned out to be a
15 bungling of mismanagement throughout the last
16 seven years.

17 So now I implore you to vote for a
18 positive outcome on SEC-00126, and send this
19 petition to Congress for their action. Thank
20 you.

21 CHAIRMAN ZIEMER: Richard, thank
22 you very much for those comments. We

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1 appreciate your being here today. Let me ask
2 Board members if there are any further
3 questions. Yes, Mr. Gibson.

4 MEMBER GIBSON: You mentioned that
5 31 employees were employees of Atomics
6 International. Did they come from the Susana
7 site?

8 MR. NELSON: The employees you are
9 referring to was in 1963, and they were
10 Atomics International folks, which I think --
11 my understanding is now present day Santa
12 Susana.

13 CHAIRMAN ZIEMER: I think his
14 question was did they come here from Santa
15 Susana?

16 MR. NELSON: Well, some of them
17 came from Idaho, had worked there previously,
18 and some of them came from there is my
19 understanding.

20 MEMBER GIBSON: So I guess my
21 question, is there a way to -- if we approve
22 this petition, is there a way to track these

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1 employees so that their days working here will
2 contribute to the 250 days needed?

3 CHAIRMAN ZIEMER: Yes. Actually,
4 Department of Labor does that automatically,
5 is my understanding. As long as their
6 employment is identified, if this were an SEC,
7 and Santa Susana is, they would get credit for
8 both. Is that correct? Yes, the NIOSH people
9 are saying that that is correct.

10 MEMBER GIBSON: There is a way to
11 track them, though, right?

12 CHAIRMAN ZIEMER: Yes. Well, by
13 their identification of their workplaces is
14 how it would work, as I understand it. Thank
15 you for that question, Mike.

16 Board members, it would be in order
17 to have a motion for action on this particular
18 petition. Does anyone wish to make a motion?

19 Ms. Munn?

20 MEMBER MUNN: I move that we accept
21 the NIOSH recommendation. Would you like this
22 broken into two parts, one with respect to the

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1 early days and one specifically covering -- or
2 just --

3 CHAIRMAN ZIEMER: I think it can be
4 done in --

5 MEMBER MUNN: I would think one.

6 CHAIRMAN ZIEMER: I think the
7 wording is such that it is all inclusive, is
8 it not?

9 MEMBER MUNN: Well, the wording of
10 the final recommendation certainly is.

11 CHAIRMAN ZIEMER: They need to
12 parallel. I think it is a single motion, I
13 believe.

14 MEMBER MUNN: I think so.

15 CHAIRMAN ZIEMER: Can you clarify
16 that?

17 MR. RUTHERFORD: I think our class
18 definition actually -- I don't believe it
19 does. I believe the -- the recommendation
20 only covers --

21 CHAIRMAN ZIEMER: Okay. It covers
22 May '66 through February '69. That is the

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1 motion. Correct.

2 MEMBER MUNN: That was my
3 understanding, from May 1, 1966, through --
4 May 2, 1966, through --

5 CHAIRMAN ZIEMER: So you are moving
6 the NIOSH proposed class.

7 MEMBER MUNN: Yes. That we move
8 the proposed class, specifically as designated
9 in this presentation by NIOSH.

10 CHAIRMAN ZIEMER: Is there a
11 second?

12 MEMBER CLAWSON: Second.

13 CHAIRMAN ZIEMER: Discussion?

14 MEMBER MELIUS: Yes. Just a
15 clarification on this two-part presentation.
16 I think if we cover in the letter -- presuming
17 that we all agree -- a finding on sort of the
18 operational period, the first part, that we
19 find they are able to do dose reconstructions
20 during that time period. Then that would be a
21 single letter report to the Secretary, a
22 single recommendation. So, again, speaking in

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1 favor of the motion, but I think the
2 clarification would be that in the letter that
3 we send that we probably need to say something
4 about the earlier time period, if we are in
5 agreement on that.

6 CHAIRMAN ZIEMER: Are you ready to
7 vote? Okay, we will vote by roll call, and I
8 am going to vote Yes and excuse myself while
9 you do the rest of the vote.

10 MR. KATZ: I think I will start
11 with Dr. Ziemer.

12 MEMBER GRIFFON: Can I say one
13 thing before we vote? Just to follow up on
14 Jim's notion, I mean, if we are -- The only
15 hesitation I have on the operational period,
16 quite frankly, is this question of sufficient
17 accuracy.

18 The proposal right now is to assign
19 the MPC value across the board five times the
20 beta, and following up on John's question -- I
21 mean, all these things probably bound, but it
22 seems like this case of throwing high numbers

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1 to be able to reconstruct -- I was thinking we
2 were going to just vote on the post-
3 operational period and not -- I think it might
4 require a little more review by the Board to
5 say do we really feel this is the adequate
6 approach for doing dose reconstruction.

7 I am not saying these values aren't
8 likely bounding, but it seems like they may be
9 excessively so. So just my thought on that.
10 I don't know how people feel.

11 MR. KATZ: Wanda?

12 MEMBER MUNN: Well, the examples
13 that were given were quite clear. I don't
14 know whether you were watching those examples
15 or not, but they gave us a number of examples
16 of individuals whose calculations they had
17 done already, and only one of which was
18 compensable using the data that they had from
19 the records that were clearly obvious in terms
20 of less than MPCs in all conditions during
21 operation.

22 So they have one compensable case,

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1 and the others were not. That would lead one
2 to believe that it is adequate.

3 MEMBER GRIFFON: I'm not sure that
4 doesn't support my position, actually. I
5 mean, that is the -- You know, it is the
6 rationale, throw the highest number out that
7 we can, and some cases, though, are not going
8 to be compensable. Then that is not to the
9 letter of the law. We have to consider
10 whether we have data to do dose reconstruction
11 with sufficient accuracy.

12 I am challenging the question of
13 sufficient accuracy, not the notion of
14 necessarily that there are elevated exposures.

15 I am going back to John's comment of, you
16 know, when I think of five to one, well, what
17 was the basis for this five to one ratio for
18 beta? If the basis for using the five to one
19 ratio was that either when we throw this five
20 to one ratio in there it is not going to be
21 compensable, that is not sufficient accuracy
22 in my eyes. That is not the way to back-fit

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1 this thing.

2 CHAIRMAN ZIEMER: Well, let me
3 interrupt here, because we are ending up
4 debating in the middle of a vote. I'll know
5 better next time. But let me understand the
6 issue.

7 There may be a desire, and the
8 Chair is certainly willing to do this, to
9 divide this in some way. As it currently
10 stands, the motion covers the period --

11 MEMBER MUNN: It is from May 2,
12 1966, to February 1969, the end date.

13 CHAIRMAN ZIEMER: Only the post-
14 operational period.

15 MEMBER MELIUS: We can have a
16 separate motion on the operational period.
17 Then we can combine them in the letter. We
18 can have separate letters. We can continue
19 the evaluation of the operational period, just
20 sort of what Mark is speaking to. That's all
21 fine.

22 CHAIRMAN ZIEMER: Mark, are your

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1 concerns with the operational period?

2 MEMBER GRIFFON: Yes.

3 CHAIRMAN ZIEMER: But not with this
4 period that we are voting on?

5 MEMBER GRIFFON: No, right.

6 CHAIRMAN ZIEMER: Okay. And, Dr.
7 Melius, you mentioned including a statement in
8 the letter, but it would only refer in some
9 way to that other period, the operational
10 period, but it is not necessary to do that.

11 MEMBER MELIUS: Not necessary, but
12 however we decide to handle it.

13 CHAIRMAN ZIEMER: Right. Could be
14 referred to, but it is not necessarily
15 pertinent to this particular vote at this
16 moment. Larry, you had a comment.

17 MR. ELLIOTT: I don't know if this
18 is going to help or not, but some background
19 information. At the current time for the
20 claims that we have, there is only one claim
21 that would not be treated positively by this
22 class addition. That claim is only during the

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1 operational period, and it has internal dose
2 monitoring for it.

3 MR. NELSON: They have external
4 dose monitoring records for that claim, and it
5 did have a statement that there wasn't any
6 internal -- I don't remember the exact
7 verbiage, but it said that there wasn't any
8 internal dose ever assigned -- which, to me,
9 isn't super accurate of whether he was
10 monitored or not.

11 Is there another part of that
12 question? I forgot.

13 CHAIRMAN ZIEMER: Thank you.

14 MR. RUTHERFORD: Oh, I did want to
15 add to that. This individual also worked at
16 another facility where there was internal
17 monitoring. So we could use that data to
18 bound the dose for internal monitoring for
19 that individual. We could use that data that
20 you have and backfit it for that individual.

21 CHAIRMAN ZIEMER: It was for a
22 period after this?

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1 MR. RUTHERFORD: Afterwards, yes,
2 at Idaho.

3 CHAIRMAN ZIEMER: Well, okay. Were
4 you voting, Mark, at that time when you raised
5 that question?

6 MEMBER GRIFFON: No, no, no. We
7 didn't go to the vote yet.

8 MEMBER MELIUS: Well, we have one
9 vote.

10 CHAIRMAN ZIEMER: We had a vote.
11 That's all right. We are still voting on the
12 main motion, which is the class for the post-
13 operational period.

14 MR. KATZ: Mr. Schofield?

15 MEMBER SCHOFIELD: Yes.

16 MR. KATZ: Dr. Roessler?

17 MEMBER ROESSLER: Yes.

18 MR. KATZ: Mr. Presley?

19 MEMBER PRESLEY: Yes.

20 MR. KATZ: Dr. Poston?

21 MEMBER POSTON: Yes.

22 MR. KATZ: Ms. Munn?

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1 MEMBER MUNN: Yes.

2 MR. KATZ: Dr. Melius?

3 MEMBER MELIUS: Yes.

4 MR. KATZ: Dr. Lockey?

5 MEMBER LOCKEY: Yes.

6 MR. KATZ: Mr. Griffon?

7 MEMBER GRIFFON: Yes.

8 MR. KATZ: Mr. Gibson?

9 MEMBER GIBSON: Yes.

10 MR. KATZ: Mr. Clawson?

11 MEMBER CLAWSON: Yes.

12 MR. KATZ: Ms. Beach?

13 MEMBER BEACH: Yes.

14 MR. KATZ: That is unanimous.

15 CHAIRMAN ZIEMER: Okay, the motion
16 carries, and we would recommend an SEC for
17 that post-operational period.

18 Now we may finish this after lunch,
19 but we still have then what, I believe,
20 constitutes a recommendation for the
21 operational period, January 1, '63, through
22 May '66, which is the period for which NIOSH

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1 believes that dose can be reconstructed, and
2 we would need to take an action on that as a
3 separate action.

4 This would be either to agree that
5 that is the case and to, therefore, recommend
6 that the SEC not cover that period, or you may
7 wish to have this studied further under a work
8 group type of situation and clarify some of
9 the issues such as, I believe, you apparently
10 were raising, Mark, at that time.

11 So I would like to have you ponder
12 that while you are eating lunch, and when we
13 return. We are already past the stated
14 lunchtime, and we do have another time certain
15 which shows up at 1:45, but it is now -- well,
16 I guess we are not past -- yes, we are. It is
17 12:30.

18 So you need to be back here
19 promptly at 1:45. We may have to take up the
20 rest of this at a later time, because we want
21 to honor the time certain, but that remains
22 before us, the rest of this petition.

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1 Let's recess for lunch.

2 (Whereupon, the above-entitled
3 matter went off the record at 12:29 p.m until
4 1:45 p.m.)

5 CHAIRMAN ZIEMER: We are ready to
6 begin our afternoon deliberations, if you
7 would all have a seat, please. This afternoon
8 we are going to consider the petition for
9 Metals and Controls Corporation.

10 I would like to point out that Mark
11 Griffon believes that he is conflicted on
12 this, although it is not on his original
13 conflicting list, as it were, but he
14 discovered in reading the documents that he
15 had actually done work on this site,
16 apparently when it was under a different name,
17 but in any event Mark will be away from the
18 table during our discussion of Metals and
19 Controls Corporation.

20 The NIOSH evaluation report will be
21 presented by Dr. Neton. Also, we may have one
22 of the petitioners on the line as well. So

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1 first we will hear from Dr. Neton.

2 DR. NETON: Thank you, Dr. Ziemer,
3 and good afternoon. I will be talking about
4 the Metals and Controls SEC evaluation report,
5 and that is SEC Number 149.

6 The petition overview that we
7 normally give is listed here. NIOSH evaluated
8 its position in accordance with the
9 requirements of an 83.14. That is a case where
10 we found that we couldn't do a dose
11 reconstruction, and recruited a petitioner to
12 file under 83.14.

13 The petitioner for this particular
14 SEC worked at Metals and Controls from 1952 to
15 1967, and it was received by NIOSH on July
16 21st of this year. Metals and Controls is an
17 atomic weapons employer facility. It covered
18 employment from 1952 to 1967, located in
19 Massachusetts in Attleboro. It became a
20 division of Texas Instruments in '59, and
21 oftentimes these terms are used
22 interchangeably to refer to Metals and

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1 Controls. You might hear it as Texas
2 Instruments. It refers to one and the same
3 facility.

4 The initial operations at Metals
5 and Controls involved fabrication of these
6 enriched uranium foils for reactor
7 experiments, but interestingly to me, they did
8 a quantum jump within a few years. I think
9 these foils were made in the early Fifties,
10 and by the end of the 1950s they were
11 fabricating fuel elements, reactor cores. I
12 mean some pretty heavy stuff, using enriched
13 uranium. So in about seven years, they really
14 jumped both feet into the nuclear business.

15 The variety of government
16 contractors for this type of work that they
17 have done included the Navy, the Air Force,
18 and some commercial operations, but I think
19 what got them into the AWE business is between
20 '65 and '81 they manufactured fuel for the
21 High Flux Isotope Reactor at Oak Ridge.

22 I would like to emphasize this last

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1 bullet. They did work with thorium at this
2 facility, and we have some documentation of
3 that, that I will discuss later.

4 This slide just presents sort of a
5 laundry list of the different types of
6 radioactive materials that are present in the
7 source term at Metals and Controls. Of
8 course, it includes the uranium metal in many
9 forms, depleted, natural and enriched. We
10 have the experimental foils that I mentioned,
11 reactor fuel, and various metal type pieces
12 made out of uranium were fabricated there in
13 various forms. You have U_3O_8 , UO_2 powders and
14 fuel plates, and then these thorium foils that
15 were manufactured there. They are similar to
16 the uranium foils that were used for reactor
17 experiments. They manufactured these thorium
18 foils.

19 The last item we have listed here
20 is radium-226 sealed beads that -- I am not
21 really clear on exactly what they were used
22 for. It is listed here as luminescent toggle

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1 switches. So I assume they had some phosphor
2 coating that they used to make these toggle
3 switches light up in the dark. As it turns
4 out, that doesn't come into play too much,
5 because these were fairly sealed sources. So
6 the potential for internal exposure, at least
7 in our opinions, is fairly minimal.

8 The sources of available
9 information are typically what we looked at,
10 which is our own site research database. We
11 undertook several data capture efforts on
12 behalf of the site to figure out what else we
13 could garner from the different depositories
14 out there. Of course, we always look at the
15 computer assisted telephone interviews, our
16 own technical information bulletins and online
17 database searches.

18 As far as the data capture efforts
19 are concerned, we actually did do Metals and
20 Controls visits to pull out some information
21 from there. We had some discussions with
22 representatives from the state of

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1 Massachusetts Radiological Control Program.
2 We looked at the Hanford Declassified Document
3 Retrieval System. These are fairly standard:
4 The DOE legacy management sites, we looked
5 through, NRC, DOE and other online searches.
6 So we put forth a fairly robust effort to try
7 to find information on what occurred there and
8 what type of monitoring information might be
9 available.

10 There aren't very many claims, as
11 this slide indicates, from Metals and
12 Controls. There's 19 claims that meet the
13 class definition, and that actually is the
14 number of claims we received. So all
15 claimants -- all claims that we have in our
16 possession meet the class definition that we
17 have evaluated.

18 We have completed 13 dose
19 reconstructions for claims from this site.
20 There was only one active claim -- there's six
21 active claims in our possession right now that
22 have bioassay data, although I will hasten to

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1 add that none of the claims that we have
2 processed thus far have any thorium bioassay
3 data, which will become important as we
4 discuss, and five of the active claims have
5 external data.

6 The characterization of operation:

7 I mentioned this in my introductory slide,
8 much government work between '52 and '67.
9 Again U.S. Naval reactors, Air Force, Oak
10 Ridge National Laboratory were some of their
11 customers. If you read the DOE website on
12 this, I think it is even suggested in there.
13 It is really unclear how much weapons related
14 work they did. We can point to the Oak Ridge
15 High Flux Isotope Reactor as one example, but
16 I would say from looking through the records,
17 a large, large portion of the work at Metals
18 and Controls was non-AEC related -- or non-
19 weapons related, for certain.

20 But, nonetheless, they did a lot of
21 radiological work in a number of site
22 buildings. We have listed the buildings here,

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1 1, 2, 3, 4, 5, 10 and 11. I've forgotten
2 exactly how many buildings there are on this
3 site, it's a fairly large site. There are 14
4 total buildings. So a pretty good percentage
5 of the total buildings on site actually, in
6 some form or another, were involved in either
7 the processing or waste management or shipping
8 of radioactive materials.

9 Like a lot of these legacy AWE type
10 sites, we have very limited information on
11 access control practices. We found no
12 information that could tell us how the
13 material was controlled, how workers would
14 have been authorized to enter radioactive
15 material areas, that sort of thing. So given
16 the fact that the material was widespread
17 throughout the site and there is very little
18 access controls, as usual here, I think we
19 have come to the conclusion that we are unable
20 to determine which workers entered
21 radiological areas.

22 Now let me talk a little about the

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1 thorium activities. I mentioned they made
2 these thorium foils at this facility. We have
3 some information in the database in product
4 literature that talked about the thorium they
5 manufactured and promoting its usage.

6 Again, they supplied these thorium
7 strips for criticality experiments, source
8 tests and reactivity tests. The time period
9 of production is unclear, but if you look
10 further down the slide, you can see that we
11 have evidence of shipments from the Fernald
12 site between 1955 and '57 of thorium material
13 going there, presumably for use in the
14 production of these foils, and then even up
15 until '62 we see a safety analysis report
16 talking about thorium.

17 In fact, in that year it listed a
18 thorium inventory of 244 kilograms, which by
19 some of these AWE sites is not a huge amount,
20 but it doesn't take much thorium to give you a
21 fairly large internal dose. So this is a
22 quantity of sufficient magnitude to generate

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1 some very high internal dose numbers, if it
2 wasn't properly controlled.

3 Like I said, the time period wasn't
4 clear, and a little bit about the process.
5 All we know right now is it was a vacuum melt
6 process where they cast the thorium into flat
7 ingots, and then it went through some sort of
8 a rolling machine to roll it into these thin
9 foils. So it had the potential to be a
10 somewhat messy operation. I just garnered
11 this out of one of the documents that we have,
12 and I thought it was an interesting quote.
13 There is a 1964 health physics operation
14 manual that had a statement that caught my
15 eye, and I will just quote it.

16 It said, "No techniques are
17 presently available for thorium body burden
18 determinations except weighted exposure
19 averages. As soon as an accurate technique is
20 developed, it will be employed."

21 In other words, we found no
22 monitoring data, bioassay data for thorium,

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1 because they really didn't think that there
2 was any techniques that were useful. On top
3 of that, we found no air sampling data for
4 thorium either. So we are pretty much left in
5 the lurch here with what we can do for
6 thorium.

7 So what do we have that we can work
8 with from this site? We do have uranium
9 bioassay data. It started around 1953. Since
10 they were dealing with the spectrum of
11 enrichments, there are data that are both the
12 typical mass base fluorimetry type analyses as
13 well as gross alpha measurements that would be
14 used when a person, a worker had a potential
15 to be exposed to higher levels of enrichment.

16 Some data available for all years
17 through 1967, and as of 1957 about one-third
18 of the workers were monitored. Now, no
19 thorium or radium bioassay data were found, as
20 I mentioned before, and although air
21 monitoring was conducted, only one week of
22 measurements that we found were available, and

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1 that was taken in 1957. When available, we do
2 intend to use all this individual monitoring
3 data to reconstruct internal doses for non-SEC
4 classes, but at this point we don't have any
5 way to do the thorium measurements.

6 Okay, external dose: Film badge
7 results were available for the period '53 to
8 '67. Interestingly now, we have tried to get
9 an idea on the completeness of that, and the
10 Texas Instrument site staff really couldn't
11 give us a feel for the completeness of the
12 records that were provided. Essentially, we
13 heard this is what we got. They couldn't
14 really sort of put a pedigree on it and say
15 that everybody was clearly monitored who
16 should have been, or something to that effect.
17 So we couldn't get any corroboration as to how
18 much of the workforce is really represented.

19 For the non-SEC cases, as with
20 internal, we use available individual
21 monitoring data that we have in the case files
22 to reconstruct those doses, and occupational

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1 medical doses will be reconstructed over all
2 time periods using the existing methods that
3 we talked about previously. So to get to the
4 bottom line here, we believe that we lack
5 sufficient information to reconstruct internal
6 doses for thorium at the Metals and Controls
7 facility. We will do dose reconstruction for
8 non-presumptive cancers using the individual
9 external and internal monitoring data that are
10 available. As I mentioned earlier, we will
11 reconstruct the medical doses using the
12 approaches outlined in our TIB that we have
13 discussed previously.

14 As far as health endangerment goes,
15 it is pretty clear to us that some workers may
16 have accumulated chronic radiation exposures
17 from working at the facility, and we believe
18 that these exposures were of sufficient
19 magnitude to have endangered the health of
20 workers at the facility, particularly for
21 those who have worked there for 250 days of
22 employment.

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1 The final slide is the proposed
2 class for Metals and Controls, which includes
3 all atomic weapons employees who worked at
4 Metals and Controls Corporation in Attleboro,
5 Massachusetts, from January 1, '52 to December
6 31, '67 for a number of work days aggregating
7 at least 250 work days occurring either solely
8 under this employment or in combination with
9 workdays established within the parameters for
10 one or more other classes of employees,
11 included in the SEC.

12 That's it. I would be happy to
13 answer any questions.

14 CHAIRMAN ZIEMER: Thank you, Jim.
15 Considering the number of claims, which seems
16 rather small so far, I was a little surprised,
17 especially in terms of the various operations
18 that you described. Can you give us an idea
19 of what the potential for the radiological
20 workforce might have been at this facility?

21 MR. NETON: Yes. I think in the
22 early years, the 1953-54 time frame, it was

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1 fairly small, about 30 people. By the late
2 fifties, 1958 time frame, they were up to
3 about 660 employees.

4 CHAIRMAN ZIEMER: Oh, okay. That
5 makes a bit of sense in terms of the
6 operations you described. So in terms of the
7 claims so far, those 19 claims, is that the
8 total claims?

9 MR. NETON: Yes, that is the total
10 number of claims that we have received.

11 CHAIRMAN ZIEMER: -- so far. So it
12 would seem that there is a potential for many
13 more based on the size of that workforce.

14 MR. NETON: Potentially, that is
15 true. Yes.

16 CHAIRMAN ZIEMER: Thank you. Dr.
17 Melius.

18 MEMBER MELIUS: I have a few
19 questions. Your evaluation report is a bit
20 sparse in terms of some of this information.
21 So some of this in your presentation is new,
22 or maybe I missed it in the evaluation report,

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1 but in your eleventh slide talking about data
2 available for internal dose reconstruction,
3 you have some data available through '67. As
4 of 1957 one-third of workers monitored.

5 Who are you referring to when you
6 say the one-third? Is it all the workers that
7 were ever monitored or of the 600-plus?

8 MR. NETON: No. I'm not 100
9 percent certain. I interpret that to mean
10 one-third of the workers who were present at
11 that time frame. Am I correct, LaVon, in
12 that? I think that is true.

13 MEMBER MELIUS: And what is that
14 number then? I'm just trying to get a sense?
15 I mean, when you are referring to 600-plus
16 working there, is that all?

17 MR. NETON: Well, that was in 1958,
18 there were 600 employees at the site.

19 MEMBER MELIUS: Are you referring
20 to the time period -- all the people at the
21 entire facility or those involved in
22 radiological or this kind of operation? I'm

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1 trying to get a sense of the facility.

2 MR. NETON: The total workforce.

3 CHAIRMAN ZIEMER: LaVon is
4 indicating that the total workforce over the
5 period was about 600. Is that correct?

6 MR. NETON: No, no, the total --
7 the workforce in 1958 was about 660 people at
8 that time. We don't know, I don't think, what
9 the total number of employees that were ever
10 employed at Metals and Controls were.

11 CHAIRMAN ZIEMER: But the one-third
12 number only refers to '57, which is the
13 earlier --

14 MR. NETON: Right.

15 CHAIRMAN ZIEMER: Were they up to
16 that 600 by then or is that the earlier
17 number?

18 MR. NETON: Well, '58 -- I've got a
19 number here written down that was in '58. It
20 was around 660. I don't know. I assume it's
21 got to be close to that in '57. You can't
22 increase the workforce that dramatically in

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1 one year.

2 CHAIRMAN ZIEMER: I don't know if
3 that answered your question or not, Dr.
4 Melius. You may want to pursue that.

5 MEMBER MELIUS: Well, let me try
6 another question, which you may not be able to
7 answer also. But if we refer to the one-
8 third, are we -- is there any information to
9 indicate that would be the people involved in
10 these operations? I mean, they seem to be
11 specific to particular buildings, located in
12 particular buildings at different points in
13 time. So I am just trying to get a sense.
14 Was the entire workforce involved in these
15 type of operations or is it a predominant part
16 of the workforce? Is it just a small part of
17 the workforce?

18 MR. NETON: I don't know, but
19 Lavon, can you help me out with that? I am
20 not certain.

21 MR. RUTHERFORD: Based on the
22 information we have available, as time went on

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1 a larger portion of the workforce became more
2 and more involved in radiological operations.

3 As Jim mentioned, there are 14 buildings at
4 that facility. Roughly half were involved --
5 we have indications roughly half were involved
6 in using radioactive material. So that gives
7 you an idea from that. Again, as time went
8 on, a much larger portion of the workforce was
9 involved in radiological operations.

10 MEMBER MELIUS: But that could also
11 mean that they segregated the operations to
12 certain buildings, and a lot of other people
13 could be in the -- I'm just trying to --

14 MR. NETON: That is quite possible.

15 But remember, we will use the available
16 uranium monitoring data to reconstruct doses
17 for people who have nonpresumptive cancers.
18 It's the thorium that we are saying here is
19 the issue. We really don't know which
20 building the thorium activities -- in which
21 building the thorium activities occurred.

22 MEMBER MELIUS: Okay. Well, I am

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1 trying to get the class definition issue.

2 MR. RUTHERFORD: I want to point
3 out a couple of more things, too. Not only do
4 we not know which buildings the thorium in,
5 but we don't have any data at all to
6 determine. We know there was contamination
7 found outside of a couple of the buildings
8 later on, and so we don't know, one, the
9 movement of personnel to and from the
10 buildings. We also do not know any releases
11 or any information on airborne releases around
12 the facility during the thorium operations or
13 any of that. So that gives you a better feel.

14 MEMBER MELIUS: Do we have any
15 information, was there a separate divisions
16 set up that dealt with these operations within
17 the facility or was it --

18 MR. RUTHERFORD: There was a -- one
19 of the buildings -- I think, building 10 --
20 was later referred to as the nuclear building,
21 which I think a majority of the work later on
22 in the period that were identified -- the

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1 majority of the radiological work was
2 occurring in that building, but I'm not sure
3 that there was a separate division of workers.

4 MEMBER MELIUS: Who can answer
5 this? Anybody. You were relying, at least --
6 I'm a little confused between the report and
7 then some of the information presented. It
8 sounded initially like you were relying mostly
9 on the CATI interviews for information. There
10 is a statement in the report --

11 MR. RUTHERFORD: I can give you a
12 better feel for how we got to where we got.

13 MEMBER MELIUS: Yes. That would be
14 helpful.

15 MR. RUTHERFORD: We had initially,
16 in the process of developing a site profile
17 and in the development of the site profile, we
18 had done a number of data captures. There
19 were some interviews that were done at the
20 time, and the CATI interviews as well. But
21 ultimately, as we pulled all the information
22 together and drafted our site profile, it

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1 became apparent that our methodologies for
2 doing thorium were not going to work. And
3 then we moved in to the -- that's why we
4 ultimately moved in to the 83.14 --

5 DR. NETON: I can amplify a little
6 bit on that. Originally, the thought process
7 was that, if we knew the uranium operations
8 and what the airbornes were based on the
9 uranium bioassay results, we could somehow
10 scale that to estimate what the thorium
11 operations were. But once we realized this
12 was sort of a vacuum melt furnace operation
13 and with a separate rolling, we really knew
14 very little about how that compared to the
15 uranium activities, and then we came to the
16 conclusion that it was just -- you know, we
17 couldn't bound the thorium doses.

18 MEMBER MELIUS: I guess I don't
19 have a problem with the thorium. I guess I am
20 just -- it's the class definition and
21 statement, you know, sort of you are unable to
22 specify which workers may have been exposed.

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1 Did you make an adequate effort to try to
2 determine if there were records or other
3 information to do that? It is certainly not -
4 - I wasn't comfortable with what was in the
5 report. I am more comfortable with what you
6 have presented here. I am just trying to
7 understand it a little bit more.

8 CHAIRMAN ZIEMER: This is
9 analogous, sort of, to the Oak Ridge Hospital
10 situation where, as I understand it, you
11 cannot exclude even the so called non-
12 radiological buildings, people, at least in
13 terms of access, that there is nothing at this
14 point to indicate who had access to which
15 buildings. So if they are present in any of
16 them, they would qualify under this
17 definition.

18 MEMBER MELIUS: Let me give an
19 example. I didn't -- and I could have missed
20 it in the evaluation report. I didn't see any
21 reference to a site visit, somebody actually
22 going to visit the site and obtaining

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1 information. You referenced that in your
2 slides. So that is helpful to know.

3 CHAIRMAN ZIEMER: Are there other
4 questions or comments from the Board members?

5 Thank you, Jim. Oh, Mike Gibson? Sorry.

6 MEMBER GIBSON: It also appears
7 that some of the radiological work was not AEC
8 work. It was for other agencies.

9 MR. NETON: Correct.

10 MEMBER GIBSON: Is the dose from
11 those type operations going to be included?

12 MR. NETON: Yes. Yes, that is part
13 and parcel of our program, that all sources of
14 radioactive exposures must be reconstructed,
15 regardless of the nexus of those exposures.

16 MEMBER GIBSON: And that is true
17 for all facilities and sites?

18 MR. NETON: It is not true in the
19 residual contamination periods at AWEs. Once
20 the contract is terminated with the AEC, then
21 the residual contamination as a result of AEC
22 activities is reconstructed, but the other

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1 sources of radiological exposures are not
2 reconstructed.

3 MEMBER GIBSON: But during the
4 active years?

5 CHAIRMAN ZIEMER: Everything is
6 included, correct.

7 MR. NETON: All sites.

8 CHAIRMAN ZIEMER: Also, I want to
9 check and see if the petitioner is on the line
10 and, if so, if the petitioner wishes to
11 comment. If the petitioner is on the line --

12 MS. SAMARDAK: I believe I'm the
13 petitioner.

14 CHAIRMAN ZIEMER: Okay. If you are
15 willing to identify your name for the record,
16 and then if you wish to comment, that would be
17 fine.

18 MS. SAMARDAK: My name is Loretta
19 Samardak, and was an employee of Texas
20 Instruments from 1957 to 1985. When I went to
21 work in the nuclear group -- I immediately
22 went to work in the nuclear group in 1957, and

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1 I stayed there until it closed. And then I
2 continued work for Texas Instruments until '85
3 when I retired, because I had cancer.

4 The records sound pretty accurate
5 to me. I recall there were about 700
6 employees at its peak in the nuclear group,
7 and I know that it was wide open
8 manufacturing, and there were a few
9 evacuations when they had problems, and it
10 never dawned on me when I got cancer what it
11 could be from, because there was no record of
12 anyone in my family, not even cousins, ever
13 having cancer.

14 Then when the publicity came about
15 in the Providence Journal in Rhode Island that
16 this program was being started, I called and
17 got the information, and it went on from
18 there, that was in 2001. But I'm surprised
19 it's only 19 claims that you have received,
20 because I made a count of people I knew who
21 were very active in the production operation
22 who died of cancer. I could name some of them

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1 off the top of my head, but I know there were
2 many more.

3 It was mostly men. There weren't
4 that many women employed in the nuclear group,
5 and there were some inspectors and women who
6 worked out on the production floor inspecting,
7 but they were predominantly men, engineers and
8 physicists. We had a vault that had workers
9 in it that worked exclusively in the vault
10 where they split uranium, and I know they got
11 cancer quite early on.

12 It was only 700 people in there,
13 and it was like a family, because we were
14 isolated, pretty well isolated in that
15 building, and there wasn't a lot of traffic in
16 the building, because people without
17 clearances weren't allowed.

18 I don't know if you would like me
19 to expound on anything else.

20 CHAIRMAN ZIEMER: Okay. Thank you
21 very much, Loretta, for that information.
22 Your very last comment, of course, raises some

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1 questions, because we have just been talking
2 about access to that building, and you have
3 indicated that others weren't allowed in the
4 so-called nuclear building, although there
5 were other buildings involved through the
6 years. That may have been possibly before
7 your work time there. So that, as it ends up,
8 the proposed definition expands the coverage
9 to other buildings as well.

10 As far as the 19 claims, that is
11 all that has been received so far, but it is
12 certainly a possibility there would be more to
13 come, based on just the numbers of people that
14 worked there and, as you have indicated, there
15 certainly may be others that --

16 MS. SAMARDAK: At the time I
17 started working there, I was 24 years old, and
18 I retired from there when I was like 52. I
19 actually retired in '55. So I think -- that
20 was an error. I was thinking that was when I
21 had the cancer. Yes, I did work there until
22 '85. That's right. I did. That is when I

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1 got cancer, in November of '85.

2 The nuclear facility had office
3 areas, and there was access to both areas, but
4 people without clearances didn't go out into
5 the manufacturing area. But the ladies' room
6 -- this was really a strange situation, but
7 the -- there was a mezzanine area over the
8 manufacturing floor, and I worked with the
9 division manager, and he -- it was all glassed
10 in, and he could overlook the whole
11 manufacturing floor. And I was on that floor
12 all the time. Coffee machines were in the
13 manufacturing area, the ladies room was in the
14 manufacturing area. You had to cross the
15 whole plant to get to the ladies room, and the
16 ladies room was right next to the vault, and
17 that material was passing in and out on
18 dollies all the time.

19 CHAIRMAN ZIEMER: Okay. Thank you
20 for those additional comments. Now, Board
21 members, I would like to see if there is any
22 additional comments or questions for NIOSH.

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1 We have a recommendation that the Materials
2 and Controls Corporation SEC be recommended to
3 the Secretary as a class of -- or as an SEC
4 petition, that we recommend a class to the
5 Secretary.

6 It would be appropriate to have a
7 suitable motion.

8 MEMBER BEACH: I have one more
9 question.

10 CHAIRMAN ZIEMER: Oh, questions
11 first, okay, Josie Beach.

12 MEMBER BEACH: And I don't know who
13 can answer this. Has there ever been any
14 worker outreach done in that area, other than
15 the CATI reports that you read?

16 CHAIRMAN ZIEMER: LaVon, can you
17 answer that? That may also have to do with
18 the numbers that we are seeing, which seem to
19 be very low.

20 MR. RUTHERFORD: I haven't seen any
21 official worker outreach.

22 MEMBER BEACH: Is there any plan

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1 that you know of?

2 MR. RUTHERFORD: Not that I know
3 of.

4 MEMBER BEACH: Thank you.

5 CHAIRMAN ZIEMER: Thank you, Josie.

6 At least, the question may raise some
7 awareness of some follow-up. Thank you.

8 Additional comments? Again, it
9 would be in order to have a suitable motion
10 for action on this recommendation. Yes, Mr.
11 Presley?

12 MEMBER PRESLEY: So moved.

13 CHAIRMAN ZIEMER: I believe you
14 moved that we recommend to the Secretary that
15 this class be added to the Special Exposure
16 Cohort. Is there a second?

17 MEMBER MUNN: Second.

18 CHAIRMAN ZIEMER: There is a
19 second. Then the class description would be
20 as provided by NIOSH. Are there any further
21 comments or discussion on the motion?
22 Apparently not. Then we will vote by -- yes,

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1 by ballots. We'd rather have vote by ballots
2 -- Ted will take the roll call vote.

3 MR. KATZ: Ms. Beach?

4 MEMBER BEACH: Yes.

5 MR. KATZ: Mr. Clawson?

6 MEMBER CLAWSON: Yes.

7 MR. KATZ: Mr. Gibson?

8 MEMBER GIBSON: Yes.

9 MR. KATZ: Dr. Lockey?

10 MEMBER LOCKEY: Yes.

11 MR. KATZ: Dr. Melius?

12 MEMBER MELIUS: Yes.

13 MR. KATZ: Ms. Munn?

14 MEMBER MUNN: Yes.

15 MR. KATZ: Dr. Poston?

16 MEMBER POSTON: Yes.

17 MR. KATZ: Mr. Presley?

18 MEMBER PRESLEY: Yes.

19 MR. KATZ: Dr. Roessler?

20 MEMBER ROESSLER: Yes.

21 MR. KATZ: Mr. Schofield?

22 MEMBER SCHOFIELD: Yes.

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1 MR. KATZ: Dr. Ziemer?

2 CHAIRMAN ZIEMER: Yes.

3 MR. KATZ: It is unanimous.

4 CHAIRMAN ZIEMER: So the vote is 11
5 yeas, and Mr. Griffon is conflicted and does
6 not vote. So the motion passes, and we will
7 recommend to the Secretary that an SEC class
8 be added for Metals and Controls Corporation.

9 Next on our agenda is an SEC
10 petition for Electro Metallurgical Company. I
11 do need to determine whether or not the
12 petitioners are on the line. Are either of
13 the petitioners on the line for Electro
14 Metallurgical Company?

15 We are just a bit early. So we
16 will wait just a moment.

17 (Whereupon, the above-entitled
18 matter went off the record at 2:20 p.m. and
19 resumed at 2:21 p.m.)

20 CHAIRMAN ZIEMER: Mr. Katz, do we
21 need to talk about meeting dates and locations
22 as we look forward? First of all, we do have

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1 a Board teleconference scheduled for December
2 the 8th, and I believe that is at 11:00 a.m.
3 So make sure that is on your calendar.

4 MR. KATZ: Right. So following
5 that there is -- we have a full Board meeting
6 February 9th through 11th. That is Manhattan
7 Beach, California. That is all set. Then we
8 have a Board teleconference on March 31st at
9 11:00 a.m. again. The one we want to confirm
10 here is -- It is tentatively written in -- a
11 full Board meeting May 19th through 21st, and
12 it has been discussed. It was requested by
13 the New York delegation that we hold that in
14 Buffalo, New York. We discussed that at the
15 last Board meeting. There was also some
16 mention of holding one in the D.C. area, but
17 at the time we spoke about it this summer, we
18 were having difficulty finding a hotel. We
19 have a hotel. So having the meeting in
20 Buffalo is not a problem in a logistical sense
21 at all.

22 D.C. -- we didn't pursue it, but --

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1 MEMBER MUNN: I thought there was
2 interested in Idaho for that.

3 MR. KATZ: We have a meeting
4 scheduled for Idaho this summer. I will get
5 to that, but that is August, August 10th
6 through 12th, when there is no snow.

7 CHAIRMAN ZIEMER: Is that the week
8 that there is no snow?

9 MEMBER CLAWSON: We don't guarantee
10 that.

11 CHAIRMAN ZIEMER: I think the
12 question Ted is asking is do you want to
13 confirm a Buffalo meeting in May, I believe,
14 is the question he has. Yes, Phil?

15 MEMBER SCHOFIELD: I think we kind
16 of pushed that at the last meeting for
17 Buffalo. I think we should just keep it
18 there.

19 CHAIRMAN ZIEMER: Thank you. Other
20 comments?

21 MEMBER MUNN: What is happening
22 that would take us to Buffalo?

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1 CHAIRMAN ZIEMER: What we have in
2 Buffalo is we do have a petition, an SEC
3 petition from Bethlehem Steel. Now part of
4 that petition, I believe, rests on the issue
5 of surrogate data, and I believe that the
6 Surrogate Data Work Group is still dealing
7 with the criteria for use of surrogate data,
8 and I am looking for Dr. Melius, because he
9 chairs that particular work group.

10 It would certainly be helpful if we
11 had by May some closure on surrogate data
12 criteria, both at the work group level and, in
13 my opinion, at the Board level as well. Since
14 there is another meeting prior to that -- we
15 have the February meeting -- that would be a
16 goal to try to push for. Dr. Melius seems to
17 have left the room. He was looking for Mark
18 who is now here. Mark, could you go find Dr.
19 Melius? No, don't do that.

20 In any event, let me have any other
21 comments on Buffalo.

22 MEMBER ROESSLER: There is Dr.

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1 Melius.

2 CHAIRMAN ZIEMER: Or alternates.
3 We can defer this until tomorrow also, until
4 we see what other things are coming. We have
5 some other SECs coming down the line as well,
6 which will be presented by LaVon tomorrow. I
7 guess I am going to just stop at that point.
8 We will pick it up again. We have confirmed
9 the other two meetings. We will come back to
10 this after we see what the total SEC picture
11 looks like. But let me just alert Dr. Melius.

12 We were talking about meeting in
13 Buffalo, and I indicated that it would be --
14 if we do meet in Buffalo, one of the things
15 the folks there are very interested in are the
16 surrogate data criteria, which are in draft
17 form and would need to be finalized by the
18 work group and then out to the full Board by
19 the February meeting.

20 I don't know if that is doable
21 because of the meeting times, but it would be
22 a goal. It seems to me, if we are going to

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1 Buffalo, it would be important to have some
2 level of closure on those or at least have
3 those on the table.

4 MEMBER MELIUS: We are not planning
5 on Buffalo in February, are we?

6 CHAIRMAN ZIEMER: No, no. We are
7 talking about Buffalo in May, but our meeting
8 before that is February.

9 MEMBER MELIUS: I understand.

10 CHAIRMAN ZIEMER: But I am
11 suggesting that we perhaps then finalize the
12 decision on that tomorrow after we see sort of
13 the full load of other SEC activities coming
14 before us, and have a good feel for what else
15 is on our platter at that time. But we have
16 had a number of requests from the, not only
17 Congressional delegation, but the folks
18 associated with Bethlehem Steel, the
19 petitioners, to come to Buffalo. Certainly, to
20 the extent we are able to do that and have the
21 appropriate material ready to discuss, that
22 certainly would be appropriate. So at least

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1 be thinking about that, and be prepared
2 tomorrow to finalize a recommendation on that.

3 I am going to now -- having used a
4 little time here to go back and see if the
5 petitioners are on the line from the Electro
6 Metallurgical Company. Are there petitioners
7 on the line?

8 (No response.)

9 Because it is now 2:30 which is the
10 proper time. The indication I had was that at
11 least one of the petitioners would be on the
12 line. Perhaps before we actually get into the
13 presentation, I will make one other comment on
14 this particular petition.

15 On this particular petition, the
16 petitioner asked us to delay the presentation.

17 That request occurred just a few days ago,
18 over the weekend, and Ted Katz did discuss
19 that with me. I felt that -- well, the
20 petitioner basically said we haven't had time
21 to review the evaluation report and respond to
22 it, and my feeling on this was that we needed

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1 to go ahead and have the presentation made.
2 This is one where NIOSH is -- I will get to
3 the bottom line, you already know what it is.
4 They are recommending that they can
5 reconstruct dose.

6 Our usual practice for this is to
7 take such recommendations, to assign the
8 review of the evaluation report to a work
9 group, usually to task SC&A to assist in the
10 review, if needed, and to involve the
11 petitioners in both the review process and the
12 resolution of findings and that sort of thing.

13 So, and the effect that typically
14 occurs, if we delay the presentation, is also
15 to delay the subsequent action, such as the
16 tasking and the initiation of the work group
17 activities. So it seemed to me that it would
18 make sense to go ahead. We are not expecting
19 the petitioners to necessarily have either
20 fully reviewed the document and to have
21 necessarily, if they have things to rebut or
22 contrary information, to necessarily present

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1 that. All this will do will allow the process
2 to get underway, which in my mind is actually
3 beneficial to the petitioner, so that we don't
4 delay any actions.

5 By no means do we want to handicap
6 the petitioners in any way, and we will
7 certainly do everything we can, not only to
8 involve them, but to make sure that we do our
9 best to clarify technical issues which may be
10 of concern.

11 So with that as background, we are
12 going to proceed to have the NIOSH
13 presentation, which will be given by Chris
14 Crawford. Let me check again to see if either
15 of the petitioners are on the line at this
16 moment. This is for Electro Metallurgical.
17 Apparently not, but I think we do think we
18 need to proceed. They do have a copy of the
19 evaluation report. Thank you.

20 Chris, please proceed.

21 MR. CRAWFORD: This is a brand new
22 controller. So bear with me for a moment.

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1 Good afternoon. We are here today
2 to talk about the Electromet evaluation report
3 from NIOSH. As you see, Electromet is located
4 in Niagara Falls, New York, not far from
5 Linde, and that is no coincidence, because
6 Linde provided the source material, the
7 feedstock, for the Electromet people. They
8 began uranium operations in April of '43 under
9 contract with the NED at that time. Form
10 April '43 through June '53, the plant
11 intermittently produced uranium metal from
12 uranium tetrafluoride, also known as green
13 salt, in a thermal reduction process employing
14 magnesium.

15 This was the only process employed
16 at Electromet, and it was done consistently
17 through the years. Just as a matter of
18 history, Electromet, which is also known as
19 Electro Metallurgical Company, as well as
20 Corporation, was acquired by Union Carbide,
21 and that in turn was acquired by Dow at some
22 point later, but during these years we are

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1 concerned with Electromet Corporation itself.

2 From '43 to '51 uranium operations
3 were carried out, with two standby periods.
4 Then on June 30, '53, all AEC operations
5 formally ceased. There was a short period in
6 -- six-month period in '51 where they were
7 doing less than full scale production. Most
8 of the production was done in the '43 to '46
9 period, and then again '47 to '49.

10 We are talking about natural
11 uranium being the only nuclear component
12 present. We actually received two petitions,
13 one on November 17th, which I believe was 132,
14 the other on December 8th, which was 136. On
15 March 12th we qualified them both and rolled
16 the earlier petition into the 136 petition.
17 Then on July 23, 2009, we issued the
18 evaluation report.

19 The petitioner had proposed all
20 workers who worked in any area at the Electro
21 Metallurgical Corporation facility from
22 [identifying information redacted], '42

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1 through [identifying information redacted],
2 '53. After a little investigation by NIOSH,
3 we were able to confirm that the first uranium
4 actually arrived on or about April 1, 1943.
5 So we changed the class evaluation to all
6 workers who worked in any area at the Electro
7 Metallurgical Corporation facility from April
8 1, 1943 through June 30, 1953.

9 We had many sources of available
10 information. The SRDB, Site Research
11 Database, actually turned out to be filled
12 with things. I won't go through these
13 individually. I think you have seen them from
14 site after site. We also did interviews with
15 former Electromet employees. We also have, of
16 course, material in the individual case files
17 filed by the claimants in our tracking system,
18 and petitioner's documentation as well.

19 As of October 1st -- this says
20 August 1st, but I don't think that number has
21 changed -- we had 98 claims submitted on
22 Electromet. We have done 92 dose

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1 reconstructions. As you can see, only
2 [identifying information redacted] of the
3 cases had internal and external dosimetry.
4 Forty-four of the 92 cases had PoCs of over 50
5 percent. So at least with this batch, we are
6 compensating just under 50 percent of the
7 cases, as things stand.

8 The petitioner was concerned on two
9 rounds, really: that very few workers were
10 monitored for external exposure in the MED,
11 Atomic Energy Commission, Department of Energy
12 period, and that the effectiveness of the
13 health protection industrial health programs
14 was, by implication here, weak.

15 We looked into this again. We
16 found that some Electromet workers were
17 monitored. The production workers were
18 monitored intermittently. They were monitored
19 for a very short period in '44. This is
20 external monitoring I am talking about, and
21 then in '48 and '49 we had the production
22 workers monitored externally fairly closely.

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1 Electromet issued dosimeters to
2 employees in '44. However, in '44 there was
3 only one employee monitored and for a period
4 of three days. So that data is pretty light
5 for external dosimetry. For '48-'49 all the
6 process workers were monitored. We also have
7 urinalysis data for '44 and for '49. We have
8 breathing zone and area monitoring air samples
9 for '44 and from '47 to '49. We also point
10 out again that the production processes were
11 essentially the same for the entire period.

12 We found that production personnel
13 were indeed exposed to high levels of external
14 and internal radiation, that personal
15 protection was substantially less than modern
16 standards call for.

17 Let me say just a couple of things
18 parenthetically before getting into our sample
19 dose reconstruction. We cannot say how many
20 people had any personal protective equipment.

21 We know they wore gloves. We know they used
22 respirators. We have comments about that, but

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1 we don't know how many people did or how often
2 or how consistently. So of course, we never
3 include respirator protection anyway in our
4 monitoring.

5 The only reason I bring it up is
6 that, you will see later, we have some very
7 high inhalation exposures, and one was so high
8 that one would wonder how they worked in such
9 an atmosphere. Well, many of the dustiest
10 jobs, in fact, they probably did wear
11 respirators, but again that is parenthetical.

12 For our sample dose reconstruction,
13 what I am presenting here, we will take an
14 operator -- that is, one of the process
15 people, most exposed -- a male, born in '23,
16 who got a basal cell carcinoma, ICD Code
17 173.3. We are assuming that this is on a part
18 of the body that is not covered by clothing
19 and that isn't in the direct path of the X-ray
20 beam, as far as I know.

21 The date of diagnosis is 1980.
22 Ethnicity is white, non-Hispanic. This person

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1 was unmonitored for the entire production
2 period. There is no external monitoring and
3 no internal monitoring at all for this person.

4 We made claimant favorable assumptions in the
5 case by providing under TBD-6001, Appendix C,
6 which is specific to Electromet. We have
7 established unmonitored photon and electron
8 doses assigned for all years of production.

9 We also assumed anterior, posterior
10 exposures. We assumed 100 percent, 30 to 250
11 keV photons at the 95th percentile exposure
12 level, and a beta exposure also at the 95th
13 percentile. We used, as we do with skin
14 cancers, a dose conversion factor of one, and
15 we assigned internal intakes of uranium at the
16 95th percentile for both inhalation and
17 ingestion. We ended up with an unmonitored
18 photon assigned photon dose of 24.355 rem for
19 the period, and an unmonitored electron dose
20 of 126.407 rem for the period.

21 For the internal, the inhalation
22 intake of Type S natural uranium, we posited

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1 60,661 dpm per day during operations, and 473
2 dpm per day during standby periods. I
3 actually found personnel rosters from '44
4 through '49, which is basically the entire
5 production period, and these weren't just
6 standbys in the sense of no uranium work was
7 going on. Most of the staff was laid off at
8 that point except for the office personnel and
9 guards for these intermittent periods. But
10 nonetheless, we established for those people
11 or for anyone else left on site some standby
12 period exposures.

13 The ingestion intake of 1178 dpm
14 per day of natural uranium, also posited, and
15 we came up with an internal dose based on
16 these figures from '43 through the date of
17 diagnosis in 1980 was 15.372 rem, which for a
18 skin cancer case is a substantial dose from
19 internal exposure only. So in this we
20 consider it a best estimate, because we are
21 going by TBD-6001 figures, which is what we
22 have to use essentially for all cases where we

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1 don't have exposure monitoring. So we have a
2 total dose of 166.188 rem, with a probability
3 of causation of 93.46 percent.

4 We also did a lung case, which you
5 will not be surprised to hear was compensable.

6 I believe that was well over 97 percent.
7 This was a very dusty plant. So lung doses
8 can be very large. We also did a prostate
9 case, and that had a very high probability of
10 causation also at 49 percent.

11 Now that is assuming that one
12 worker stayed through the entire 10-year
13 period. In many cases, there was a lot of
14 plant turnover, as you would expect. So not
15 all workers would have had this kind of dose.

16 As I mentioned before, we issued
17 the evaluation report on July 23, 2009. There
18 is a two-prong test that needs to be met that,
19 again, you are all aware of.

20 The first was is it feasible to
21 estimate the level of radiation doses of the
22 individual members of the class with

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1 sufficient accuracy. And if the answer to
2 that is no, then we have to answer the second
3 test. Is there a reasonable likelihood that
4 such radiation dose may have endangered the
5 health of members of the class?

6 Since Dr. Ziemer has given away the
7 answer, NIOSH has concluded that we can do
8 dose reconstructions for the entire period.
9 We have enough records, and we are sure enough
10 of the source term data and the production
11 process that we feel we can do dose
12 reconstructions with sufficient accuracy for
13 the evaluated class of employees. So we don't
14 need to establish the health endangerment
15 determination.

16 Essentially, we found
17 reconstruction feasible for internal uranium
18 doses and for all external radiation sources.

19 The neutron source is trivial compared to the
20 gamma photon production in this kind of a
21 plant. There is an alpha n reaction which can
22 take place with the fluoride present, but it

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1 produces very low doses compared to the other
2 dose.

3 Any questions?

4 CHAIRMAN ZIEMER: Let me start by
5 asking a question about internal dose to the
6 skin. I guess I just don't remember in the
7 models. I am going to claim it is a senior
8 moment, Jim, but I'm not seeing how we get
9 such a big -- the skin dose from uptake of
10 uranium. So am I missing something here? Is
11 that a translocation?

12 DR. NETON: It's interesting. I've
13 just had this exact same conversation with Dr.
14 Poston over the lunch hour.

15 The ICRP 66 models and the new
16 dosimetry model actually do account for dose
17 to the skin from internal -- from intakes of
18 radioactive materials.

19 CHAIRMAN ZIEMER: Is this
20 deposition somewhere in fatty tissue or
21 something?

22 DR. NETON: Well, I think what it

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1 is, is remainder tissue, essentially the
2 remainder organs, and then they assume some
3 sort of proximity of the remainder
4 distribution of tissues in association with
5 the surface layer of the skin.

6 I am not certain I am in 100
7 percent agreement with their approach, but
8 that is, nonetheless, what they have done.

9 CHAIRMAN ZIEMER: It's the way they
10 assign that then?

11 DR. NETON: Yes.

12 CHAIRMAN ZIEMER: I was going to
13 claim the model is too new for me to have been
14 familiar with it, but it sounds like it is --
15 certainly, in my mind, it would be a very
16 questionable calculation. I don't know if
17 that is something -- particularly if it is
18 going to be used in the future, but would be
19 one of those scientific issues NIOSH might
20 want to look at closely.

21 It looks like -- I understand the
22 assigning of sort of what is left over to, you

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1 know, a bunch of other organs, but in reality
2 I don't see a mechanism where the skin can be
3 one of those in this case.

4 DR. NETON: You parallel my
5 thinking exactly. In fact, when we first
6 started this program eight years ago or so, I
7 was surprised to see this, and we went through
8 in some detail and discussed this with some
9 folks. One wonders about the dose to the 70
10 micron layer where the sensitive cells of the
11 skin reside, versus an internal exposure that
12 is sort of uniformly distributed.

13 This may be one of those issues --
14 and there are some disconnects in ICRP where
15 for radiation protection purposes they have
16 taken certain liberties that may end up not
17 being 100 percent appropriate --

18 CHAIRMAN ZIEMER: From a biological
19 or cancer point of view maybe.

20 DR. NETON: Right. Nonetheless, it
21 is claimant favorable.

22 CHAIRMAN ZIEMER: I will grant you

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1 that, but is it plausible?

2 DR. NETON: This is not new. We
3 have been assigning these doses for a long
4 time. What you see here, though, is an
5 artifact of the situation where we just have
6 some very, very large inhalation intakes. I
7 forget what Chris talked about, but 60,000 dpm
8 per day or something. So 30 nanocuries per
9 day intake is a substantial quantity.

10 CHAIRMAN ZIEMER: Right. I
11 confess, I wasn't aware we were assigning skin
12 doses of that magnitude in other cases, but it
13 is, at least from a scientific point of view,
14 a little troubling, although perhaps someone
15 can convince me that it really does occur.

16 It is one of the issues we do face
17 with models sometimes. You know, we do rely
18 on models a lot, and they are often useful,
19 and, again, I quote my friend, Dan Strom: All
20 models are poor, but some are useful. Okay.

21 Other comments? Josie?

22 MEMBER BEACH: Since you stole my

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1 first question, was there any air sampling
2 data, or is this all process data? I'm sure I
3 missed that.

4 MR. CRAWFORD: Yes. There was air
5 sample data, and we do have both breathing
6 zone and general area. As luck would have it,
7 the '48, '49 data actually compares very well
8 to the '44 data that was gathered, and it is
9 high.

10 I might also point out that there
11 are many layers of conservative assumptions
12 built into this. The highest exposed member
13 of the work team, for instance, was taken as
14 an example, and his dose -- some of the air
15 sample data were more than 500 times above the
16 maximum permissible level in his case. Now we
17 think he wore a respirator, but leaving that
18 aside, we based our doses on the high member
19 of the team.

20 Many of the people received much
21 less exposure than the most highly exposed
22 members.

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1 CHAIRMAN ZIEMER: Dr. Melius?

2 MEMBER MELIUS: Has there been any
3 sort of a site visit or worker outreach for
4 this facility?

5 MR. CRAWFORD: I am unaware -- the
6 site, by the way -- my understanding -- first
7 of all, this is a DOE site. There is no
8 residual period. I forgot to mention that.
9 Also, I believe the building was torn down
10 shortly after the AEC period was over.

11 There has been no site visit that I
12 know of. We have many documents, and I don't
13 know of any outreach meeting specifically for
14 Electromet. Somebody may contradict me. No?
15 Okay.

16 MEMBER MELIUS: I would just add
17 that I think the Union Carbide facility is
18 still operational. I don't know how this
19 particular operation was connected to that,
20 but their facility in Niagara Falls -- they
21 had one that was active for years.

22 MR. CRAWFORD: I'm sure you are

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1 right. I believe this operation was later
2 done at Fernald, if I have that right, and
3 that is why the processing stopped in the
4 Buffalo area for this kind of work.

5 CHAIRMAN ZIEMER: Okay. Further
6 comments? Let me check again -- oh, another
7 comment, Dr. Melius?

8 MEMBER MELIUS: Actually, you
9 reminded me of another question. You have a
10 statement in the report about -- one of the
11 issues at Fernald are the so called blowouts,
12 and you have a statement in the report that
13 there was sort of -- I can't tell how --
14 whether it just was a flat statement here,
15 something about no credible evidence or
16 something like that. Can you sort of
17 elaborate on that -- of any blowouts at this
18 facility?

19 MR. CRAWFORD: First of all, we
20 were unable to establish exactly what a
21 blowout was. It was also not clear -- it may
22 have referred to the bombs, which are kind of

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1 an enclosed crucible, you might call it,
2 that's a reaction vessel. Maybe it would be
3 the loss of seal on one of those.

4 It is not clear that that would
5 actually produce more dust and dirt than some
6 of the later mechanical operations in filling
7 the bomb and in taking the material out of the
8 bomb. But anyway, we had nothing to go on
9 there. We don't exactly know what a blowout
10 is. Nobody was able to tell us, and we
11 certainly have no sample data from that.

12 MEMBER MELIUS: Funny, because the
13 report seemed to compare it to activities at
14 Fernald so it's a little confused. We can
15 address it later.

16 CHAIRMAN ZIEMER: I want to check
17 and see if either of the petitioners who are
18 Electro Metallurgical have come on the line
19 and, if so, if they wish to speak. Okay,
20 apparently not. Hang on. Yes?

21 MS. BONSIGNORE: Hello. This is
22 Antoinette Bonsignore. I am not one of the

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1 Electromet petitioners, but I have been
2 assisting both of these petitioners with this
3 SEC petition.

4 CHAIRMAN ZIEMER: Yes, I am aware
5 of that.

6 MS. BONSIGNORE: And I don't
7 believe that they were aware that this
8 petition was going forward today.

9 CHAIRMAN ZIEMER: Well, it has been
10 on the agenda. I mentioned at the beginning,
11 I know that one of the petitioners asked that
12 we delay it, but --

13 MS. BONSIGNORE: Right.

14 CHAIRMAN ZIEMER: -- but we
15 indicated that we did plan to have the
16 presentation in the interest of going ahead
17 with the follow-up operations that we usually
18 do on this type of petition, which include
19 usually the tasking of our --

20 MS. BONSIGNORE: Working Group.

21 CHAIRMAN ZIEMER: Well, both the
22 Working Group and of our contractor.

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1 MS. BONSIGNORE: Right.

2 CHAIRMAN ZIEMER: I think we have--

3 MS. BONSIGNORE: Well, I understand
4 that, Dr. Ziemer, but I know that -- I believe
5 that Ted Katz may have sent an email to one of
6 the petitioners letting them know that this is
7 going forward, but I don't believe she got the
8 email or --

9 CHAIRMAN ZIEMER: I see.

10 MS. BONSIGNORE: I happen to know
11 her quite well, and she doesn't check her
12 email very regularly. So I don't believe she
13 knows what is going on, and I contacted both
14 of the petitioners by phone about 10 minutes
15 ago, and neither of them are at home.

16 CHAIRMAN ZIEMER: Okay. Well, we
17 appreciate you following up on that. We have
18 an additional comment here from Laurie. Go
19 ahead.

20 MS. BREYER: No, I was going to add
21 that we notified the petitioners when the
22 evaluation first came out in late August/early

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1 September, that it was going to be at this
2 meeting, and then I contacted them in mid- to
3 late September and let them know, and I talked
4 to the petitioner the day before she sent the
5 email letting her know it was still going to
6 be on the agenda. Then she received an email
7 again from Ted saying that it would be the
8 agenda still, and I received no phone calls or
9 emails from either of them asking if it was
10 still on the agenda.

11 Everything that has been
12 communicated to them was that it was going to
13 be on this agenda at this time and that it was
14 still going forward.

15 CHAIRMAN ZIEMER: Right.

16 MS. BONSIGNORE: I understand that,
17 Laurie, but I don't believe that this
18 petitioner has seen that email from Ted.

19 MS. GREYER: Well, the petitioner
20 does have my phone number and has my email as
21 well, and hasn't contacted me since I talked
22 to her on Thursday telling her that it was

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1 going to be on today's agenda. So if there
2 was some confusion, you know, I would be happy
3 to clear it up with her and tell her what
4 happened.

5 CHAIRMAN ZIEMER: Well, I don't
6 believe it will be a problem in terms of how
7 we will proceed. As I indicated at the
8 beginning of this, we will give the petitioner
9 every opportunity to provide input to a Work
10 Group, which I expect will be the next
11 assignment. We will keep the petitioners
12 involved in the activities of the Work Group
13 meetings and try to assist in answering
14 technical questions that may arise.

15 So we will do our best to make sure
16 that the petitioner stays in the loop. And we
17 appreciate the fact that you have tried to
18 help her, Antoinette, and we will be in
19 contact with her as well.

20 MS. BONSIGNORE: Okay. I just
21 think it is unfortunate that she was planning
22 to give some form of a statement today and

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1 that she was unable to.

2 CHAIRMAN ZIEMER: Right. They
3 still have the opportunity.

4 MS. BONSIGNORE: I don't think that
5 is appropriate.

6 CHAIRMAN ZIEMER: Well, also if
7 you're able to reach her, we do have a public
8 comment period that you are aware of later
9 today, and perhaps if you are successful or
10 one of us is successful in trying to reach
11 her, she may have an opportunity then also to
12 make comment.

13 I know that you will be on the line
14 also, I believe, at 6:00 for comments on
15 another matter. Hopefully, we will be able to
16 hear from her one way or the other. We
17 appreciate your efforts in that regard.

18 MS. BREYER: And I will be happy to
19 call the petitioner on Monday as well and let
20 her know what happened. I did tell her that,
21 more than likely, what would happen, it would
22 go to a Work Group, and I would keep her up to

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1 date of any future Work Group meetings. That
2 way, we can avoid any future miscommunication.

3 I will be happy to do that as well.

4 CHAIRMAN ZIEMER: Thank you.

5 MS. BREYER: And let her know that
6 she could send a written statement by email to
7 the Board as well.

8 CHAIRMAN ZIEMER: Right.

9 MS. BONSIGNORE: Thank you.

10 CHAIRMAN ZIEMER: Okay. Board
11 members, any additional discussion? Mark?

12 MEMBER GRIFFON: At the risk of
13 sounding like a broken record, a question here
14 on the sufficient accuracy thing. I just
15 wanted to ask while you are here -- can lay
16 out some specifics on this.

17 A couple of the documents on the O:
18 Drive. One of them says all personnel in the
19 plant were exposed to greater than MAC, which
20 I assume to be one MAC, but I'm not sure, of
21 uranium dust. Some operations more than 100
22 times MAC.

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1 The other report -- and I think
2 this is a 1948 report -- said they found high
3 exposures with essentially all workers exposed
4 to greater than five MAC. One group handling
5 UF4 had exposures greater than 500 MAC.

6 So I go back to my theme of the
7 day, I guess. You know, it seems like all
8 workers were greater than five, but then you
9 got a factor of 100, and I think what you are
10 saying in your model is that you are going to
11 assume the worst case for all workers
12 throughout the plant, and to me, I would ask
13 the Board to consider whether a factor of 100
14 is sufficiently accurate.

15 I don't know if you can -- there is
16 no way to narrow down these workers, I assume,
17 is what you are saying, on who worked in these
18 hotter operations or these dustier operations.

19 MR. CRAWFORD: That's right. We
20 can separate the process workers from the
21 office workers, but we can't say for sure
22 which process workers did which operations.

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1 We also know that several of the operations,
2 apparently by plant custom, the jolter
3 operator and the green salt room operator
4 would switch jobs every other day. The same
5 with the head remelt man and the furnace
6 operator.

7 So pinning down the exact location
8 of any individual is really impossible. Even
9 if we had their job titles, we would have a
10 little problem, and we don't, for the most
11 part.

12 So that is quite true. Also, I
13 should explain that the 60,000 dpm per day
14 level is conservative in another sense. The
15 actual maximum data that was collected, which
16 was the 557, I think, MPL level, maximum
17 preferred level, when that was translated into
18 dpm per day, that comes out to about 40,000
19 dpm per day, and that was true both in the '44
20 time frame and in the '48-'49 time frame.

21 The reason we used 60,000 is we fit
22 that to a log normal distribution, took the

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1 95th percentile, which we felt was more
2 conservative.

3 And this also fits -- I didn't
4 mention, but should. The urinalysis data we
5 have is comfortably below that kind of level.
6 So there is no urinalysis data that would
7 challenge the assumption of 60,000 --

8 MEMBER GRIFFON: I guess that would
9 be my question. How comfortably below? I
10 would assume it is way below.

11 MR. CRAWFORD: Yes. I don't have
12 an exact number for you, but it was way below.
13 This is also above the TBD-6000, which is a
14 fairly general report. This is a specific
15 one, this TBD-6001 for Electromet, but it is
16 considerably above the TBD-6000 figures, too.

17 MR. KATZ: Paul is returning to the
18 table as we speak.

19 CHAIRMAN ZIEMER: I usually try to
20 leave when Mark has a question.

21 MEMBER MELIUS: Well, we voted for
22 you while you were away.

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1 CHAIRMAN ZIEMER: Okay. Any other
2 discussion on this? An appropriate motion
3 would be to refer this to a work group and
4 perhaps do some tasking. But let me point
5 out, this is a TBD-6001 and is involved in one
6 of the appendices, and we have, again, an
7 existing Work Group, the TBD-6000/6001 Work
8 Group, which now is getting more and more
9 loaded up with activities. But I think, as a
10 starting point, it would be appropriate to
11 have a motion to refer this to that Work
12 Group.

13 Again, as in the other case, if
14 this becomes such a burden because they now
15 are dealing with three sites if this is
16 approved as well as the main TBD documents
17 themselves -- we still have 6001 to close out
18 as well as some parts of 6000.

19 Nonetheless, I think that would be
20 appropriate at this time. Is there a motion
21 to refer this to that Work Group, and, again,
22 that Work Group already has available SC&A's

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1 services for tasking.

2 MEMBER BEACH: Paul, I will make
3 the motion to move this to the 6001 Work
4 Group.

5 CHAIRMAN ZIEMER: Thank you. A
6 second?

7 MEMBER SCHOFIELD: I will second
8 it.

9 CHAIRMAN ZIEMER: And seconded.
10 Any discussion? All in favor, aye?

11 (Chorus of ayes.)

12 CHAIRMAN ZIEMER: Any opposed? No.
13 And abstentions? Motion carriers.

14 So this will be considered then by
15 that Work Group, and, again, we will provide
16 opportunity for the petitioners to provide
17 their responses to the evaluation report, as
18 well as other information that they believe
19 might be helpful to the Work Group and to the
20 Board.

21 We can go ahead and have our break.

22 Originally, it was scheduled for 15 minutes,

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1 but we can string that out a little bit. So
2 we will make it a half-hour break and then
3 return.

4 (Whereupon, the foregoing matter
5 went off the record at 3:04 p.m. and resumed
6 at 3:38 p.m.)

7 CHAIRMAN ZIEMER: We are ready to
8 resume our meeting. Our next item on the
9 agenda is a petition, SEC Petition from what
10 is called the University of Rochester Atomic
11 Energy Project. Dr. Hughes will present the
12 NIOSH evaluation report.

13 We are uncertain if the petitioners
14 will be on the line, but if they are, they
15 will have an opportunity to comment. Dr.
16 Hughes, welcome back to the mic. You may
17 proceed.

18 DR. HUGHES: Thank you, Dr. Ziemer.
19 This is the last presentation for today. So
20 this is the NIOSH evaluation for the SEC
21 petition for the University of Rochester
22 Atomic Energy Project.

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1 A little bit of the site history,
2 this coverage started in 1943 when the
3 Manhattan Engineer District, the predecessor
4 of the AEC, contracted with the University of
5 Rochester to develop a medical program for the
6 nuclear bomb project. The reason the
7 University was chosen was because some of the
8 faculty or researchers at this facility
9 already had some previous experience with
10 investigating radionuclide and radiation
11 effects on animals, I suppose.

12 The initial task of this program
13 was to construct a building where this project
14 was housed, and this building opened on
15 September 1943. After the war, by 1946 this
16 project was transferred to the Atomic Energy
17 Commission, later to the Department of Energy,
18 and was renamed the Atomic Energy Project or
19 AEP, as it was known from thereon.

20 By 1950 the project was
21 supplemented by an educational program. This
22 was a research university, after all, and this

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1 was called the Department of Radiation
2 Biology, and just for some statistics, by 1968
3 about 800 students had passed through this
4 department.

5 From 1952 to 1968, the project
6 operated the so-called Alpha Laboratory, which
7 was a special facility to study inhalation
8 effects of alpha emitters, and I will get back
9 to that in a little bit. This facility, the
10 Alpha Laboratory, was decommissioned by 1971,
11 and the contract with the AEC, or rather the
12 DOE -- by that time, it was the DOE. The
13 contract ended in 1986, and the AEP ceased to
14 exist.

15 This is somewhat of a outline or
16 floor plan of the facility. Unfortunately, I
17 could not find a photograph. The project was
18 housed in the medical school annex. That is
19 what it was called, and it was a facility that
20 was constructed by the Atomic Energy
21 Commission for this project.

22 The initial building was called the

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1 A Wing, which is this part, already existed at
2 the University, and the following wing, the B
3 Wing, C Wing, and the O Wing and OO Wing
4 eventually had to be expanded across the
5 street, and they were connected to the
6 previous wings with a tunnel, an underground
7 tunnel, which also had a vault associated with
8 it where some sources were stored, and all
9 these were built by the AEC.

10 As for the site operations, during
11 wartime and shortly thereafter, the main focus
12 of this project was determining tolerances
13 doses for workers with regard to external,
14 internal radiation exposure. Also they were
15 tasked to develop instrumentation to measure
16 exposure, to measure contamination in plants
17 and in workers, and develop safety measures to
18 protect workers from exposure.

19 After the immediate post-World War
20 II time, from 1949 on, the focus shifted
21 somewhere -- primarily to focus on
22 consultation and education. The specific task

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1 of protecting workers and providing services,
2 monitoring services to outside plants, were
3 shifted to the New York Operations Office, the
4 Health and Safety Laboratory, actually.

5 As for the petition, this petition
6 was received on March 6, 2009. On May 7, 2009
7 NIOSH issued a professional judgment that the
8 petition qualified based on the unavailability
9 of personal monitoring data. On May 22nd the
10 Federal Register notice was published, and
11 September 9, NIOSH issued the evaluation
12 report.

13 The petitioner-proposed class
14 definition included all laboratory technicians
15 who worked in the University of Rochester
16 Atomic Energy Project Laboratory building at
17 the University of Rochester in Rochester, New
18 York, from September 1, 1943, through June 19,
19 1945.

20 Now NIOSH expanded this class in
21 order to evaluate it based on the finding of
22 lack of monitoring data, and the NIOSH

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1 evaluated class was all employees of the
2 Department of Energy and its predecessor
3 agencies, contractors, subcontractors, who
4 worked at this facility from September 1,
5 1943, through October 30, 1971.

6 NIOSH recommends to add a class to
7 be added to the SEC which consists of all
8 employees of the Department of Energy, its
9 predecessor agencies, its contractors, and
10 subcontractors who worked at the University
11 Rochester Atomic Energy Project from September
12 1, 1943 through October 30, 1971.

13 In order to evaluate this petition,
14 NIOSH went through its usual search for
15 records, and this includes the ORAU Technical
16 Information Bulletins, the case files in the
17 NIOSH database, the NIOSH site research
18 database, documents provided by the
19 petitioners, interviews and the University of
20 Rochester Library special collections.

21 Now let me add a little something.

22 The documents that are in the NIOSH site

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1 research database, obviously, come from
2 various sources, and NIOSH has done a pretty
3 thorough -- has tried to turn over every stone
4 possible in order to find records for this
5 facility.

6 This included various federal
7 records centers and, of course, several visits
8 to the actual site were made in order to
9 determine if there are records available. We
10 looked through the special collections in the
11 library, as well as the health and safety
12 records that were stored at the University of
13 Rochester site.

14 As for the interviews, we have
15 actually been able to interview eight
16 individuals, and the combined work span of
17 these eight individuals actually encompasses
18 the entire period from 1942 -- or '43, pardon
19 -- through the present. So we actually
20 covered the entire period.

21 We were actually able to talk to
22 people that worked at any given year during

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1 that period. Some of these were actually
2 individuals that worked for a very long period
3 of time, 20 to 30 years at this facility.

4 There are currently seven claims in
5 the NIOSH claims system as of August 12, 2009.

6 This is in the evaluation report, but this
7 number has not changed since then. One dose
8 reconstruction was completed, and there are no
9 cases, no claims, with internal dosimetry
10 information available, and external dosimetry
11 information is available for one claim.

12 The internal exposure potential at
13 this site was a result of numerous and varied
14 research projects involving a large variety of
15 radionuclides, including iodine-131, tritium,
16 carbon-14, and several alpha emitters. The
17 previously mentioned Alpha Laboratory was the
18 large part that produced this internal
19 exposure potential.

20 The Alpha Laboratory was a facility
21 for exposing animals to aerosols of primarily
22 alpha emitting radionuclides, such as uranium,

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1 plutonium, polonium, radium and radon; and
2 this facility was located on the second level
3 of the B Wing. It was pretty much in the
4 center of this facility.

5 It was designed to protect the
6 worker from exposure. It was divided into hot
7 and cold areas. Although it was designed to
8 protect a worker from exposure, the available
9 documentation has shown that it was also found
10 necessary to monitor whether or not workers
11 were exposed to internal radionuclides.

12 The external exposure potential was
13 a result of several X-ray units that were used
14 for various industry and medical applications.

15 One of them was called the million volt X-ray
16 machine.

17 There were two cobalt-60
18 irradiators, one of 6,000 curie strength and
19 one of 10,000 curie strength. There were
20 radon progeny from the Alpha Lab operations.
21 There was a large amount of uranium present
22 associated with various parts of this project,

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1 which could have posed an external exposure
2 potential, and just a very large number of
3 varying gamma and beta emitting radionuclides.

4 If you look at the evaluation report, it is
5 in there in a little bit more detail.

6 In addition, the University itself
7 had two cyclotrons, and in addition there was
8 a neutron -- the facility also had a neutron
9 generator and some alpha beryllium neutron
10 sources. So there was some neutron exposure
11 potential as well.

12 The availability of the internal
13 dosimetry data is limited. There is very
14 little internal dosimetry data. There is
15 some. They are very small datasets that
16 consists of five samples here, five samples
17 there, over the course of operations. It is
18 in no way sufficiently comprehensive to bound
19 the dose.

20 Now as I mentioned, the Alpha
21 Laboratory documentation that is available
22 indicated that workers needed to be monitored

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1 for internal exposure, and they actually were
2 monitored.

3 There are indications that a
4 routine bioassay program existed, which
5 started in 1953 and monitored workers for the
6 exposure to polonium-210. This was for the
7 employees of the Alpha Lab, but NIOSH was
8 unable to locate this data.

9 The external dosimetry data is in a
10 little bit better shape. External exposure
11 summaries start in 1947, and individual
12 exposure data is available starting in 1953.

13 The Brookhaven National Laboratory
14 actually provided the external film badge
15 service from 1953 to 1971, which included
16 neutron monitoring. This external data will
17 be used by NIOSH for partial dose
18 reconstruction on a case by case basis. the
19 external data is suitable for that.

20 The petition basis was that the
21 petitioner claimed that, to the best of the
22 petitioner's knowledge, the petitioner was not

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1 monitored for radiation exposure for work in
2 the radiation area, and NIOSH -- The
3 evaluation by NIOSH concurred with this
4 statement. There was no personal monitoring
5 in the period from [identifying information
6 redacted], 1943, through [identifying
7 information redacted] 1945, which was the
8 period the petitioner had indicated on her
9 petition.

10 Now, NIOSH expanded this class that
11 was evaluated to December 1971, based on the
12 unavailability of internal monitoring data,
13 and the NIOSH evaluation has found that
14 monitoring data for the proposed period for
15 the University of Rochester Atomic Energy
16 Project was not found in a sufficient amount
17 that would allow to bound the dose, although
18 the Atomic Energy Project had the potential to
19 expose workers in the AEP facility, the
20 medical school annex, to internal and external
21 radiation sources.

22 Again, this evaluation process was

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1 a two-pronged test that first determines the
2 feasibility to estimate the level of radiation
3 doses and, secondly, determines whether there
4 is a reasonable likelihood that that radiation
5 dose may have endangered the health of the
6 members of the class.

7 NIOSH found that the available
8 monitoring records, process description, and
9 source term data are insufficient to complete
10 the reconstructions -- to complete those
11 reconstructions for the proposed class of
12 employees, and NIOSH currently lacks access to
13 sufficient monitoring, source term data and
14 process information to estimate the complete
15 internal and external dose to members of the
16 class.

17 Therefore, again, the NIOSH
18 proposed class definition includes all
19 employees of the Department of Energy, its
20 predecessor agencies, and its contractors and
21 subcontractors who worked at the University of
22 Rochester Atomic Energy Project in Rochester,

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1 New York, from September 1, 1943, through
2 October 30, 1971, for a number of work days
3 aggregating at least 250 work days occurring
4 either solely under this employment or in
5 combination with work days within the
6 parameters established for one or more classes
7 of employees in the SEC.

8 Since NIOSH has determined that it
9 is not feasible to complete dose
10 reconstructions with sufficient accuracy for
11 this site and period, and concludes that the
12 health of the employees covered may have been
13 endangered, the evidence that was reviewed in
14 this evaluation indicates that workers in the
15 class may have received chronic internal,
16 external, exposures from a large variety of
17 radionuclides used in research at the
18 University of Rochester, under contract with
19 the AEC or DOE.

20 This is my last slide, and I have a
21 mistake in there. I apologize. So please
22 disregard these numbers for the years.

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1 The summary: the internal dose
2 reconstruction is not feasible for the entire
3 evaluated period of 1943 through 1971, and
4 external dose reconstructions is not feasible
5 from 1943 to 1953.

6 NIOSH has determined that those
7 external doses can be reconstructed starting
8 in 1953 when individual external data are
9 available. I made a mistake of putting 1947
10 here, which is the start of the external data
11 availability. However, it is only available
12 in summary data, and it is not clear to what
13 extent that could be used for external dose
14 reconstructions.

15 Now, I would like to point out that
16 NIOSH reserved the post-1971 evaluation
17 period, because -- okay, let me start over.

18 The post-1971 period was reserved
19 by NIOSH because of some possibility that
20 additional data might be found. Currently,
21 there are no claims that would fall into the
22 post-1971 period. So with this SEC petition

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1 evaluation, all current claims would be
2 covered, and if a claim should come in that
3 would fall into the post-1971 period, NIOSH
4 would have to reevaluate for that period.

5 I think that is my presentation.
6 Thank you.

7 CHAIRMAN ZIEMER: Thank you, Dr.
8 Hughes. Could you speak to an issue which is
9 fairly common in universities, and that is the
10 issue of access to buildings.

11 Are we assured that the buildings
12 associated with this project were not
13 accessible by others on the campus? I would
14 not want this to become one of those where
15 anybody on the campus is covered. But
16 universities are sort of notorious for not
17 having good security on buildings. So have
18 you confirmed that there was limited access to
19 this building by only those in the project?

20 DR. HUGHES: No. During the MED
21 period, there was strict access controls.
22 There was a guard. As far as we know from

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1 interviews and some other documentation, there
2 was access control.

3 Now after the post-World War II
4 period when this became the AEP under the
5 Atomic Energy Commission, there were no access
6 controls, as far as I am aware of.

7 I am not sure if people who were
8 not affiliated with this project would go in
9 this building, because this building was
10 solely devoted to just project. However, I do
11 not believe there were access controls.

12 CHAIRMAN ZIEMER: Well, it could be
13 a problem, because at least -- I've been on a
14 lot of different university campuses, and
15 except for university reactors, which are very
16 highly controlled, you can walk in almost
17 anywhere.

18 There's a few exceptions to that.
19 Some inner-city campuses, like Temple
20 University, you have to have a photo ID to get
21 into any building just to take a class. I
22 don't know if that is still true at Temple,

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1 but it was when I visited there, and it had
2 nothing to do with radiation.

3 On our campus, you can just --
4 almost anybody can walk into almost any lab,
5 even those that are presumably restricted.
6 That is one of the problems the NRC has
7 typically with universities, because they are
8 so accessible. So that would be a concern, if
9 they did not have access control.

10 Dr. Roessler, and then Dr. Melius.

11 MEMBER ROESSLER: Lara, mine is
12 pretty simple. I think on your last slide you
13 have a typo. I think you have ORINS instead
14 of --

15 DR. HUGHES: Yes.

16 MEMBER ROESSLER: You might want to
17 fix that for the record.

18 DR. HUGHES: Yes, I will send out -
19 - I noticed it after it was already sent out,
20 and I didn't want to change it for the
21 presentation.

22 CHAIRMAN ZIEMER: Dr. Melius.

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1 MEMBER MELIUS: A couple of
2 questions. As I recall -- and I am trying to
3 bring up the DOE report, but this was also one
4 of the sites involved in the human
5 experimentation issue?

6 DR. HUGHES: That is correct.

7 MEMBER MELIUS: So were there
8 records from that report accessed in some way?
9 I couldn't tell.

10 DR. HUGHES: They were reviewed,
11 yes.

12 MEMBER MELIUS: Okay, good.
13 Secondly, another source of information which
14 I didn't see referenced was -- or you talked
15 to the New York State Department of
16 Environmental Conservation, but radiation
17 regulation in New York state is divided by
18 between the State Department of Labor and the
19 State Health Department and the Environmental
20 Conservation group.

21 Department of Labor had a very
22 active inspection program that covered

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1 radiation prior to OSHA and some of the other
2 Atomic Energy Commission and other -- Nuclear
3 Regulatory Commission coming into place.

4 So they may very well be a source
5 of records. Then when their program was
6 discontinued, to some extent some of their
7 records were transferred over to the State
8 Health Department, their radiation control,
9 which had more to do with medical issues
10 related -- medical radiation sources, and so
11 forth, in terms of both regulation and so
12 forth.

13 So the State Health Department may
14 be a source, as well as the State Labor
15 Department, because I actually -- in my work
16 for the State Health Department, I received a
17 lot of the Department of Labor records related
18 to their -- essentially, their OSHA program,
19 OSHA-type program, and I believe at the same
20 time some of their records on radiation went
21 to the Radiation Bureau.

22 I don't recall specifically for the

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1 University of Rochester and so forth.

2 DR. HUGHES: I will check on it.

3 MEMBER MELIUS: The other thing I
4 will try to shake my memory on, but I can't
5 remember the physician's name. There was a
6 physician who I worked with for a period of
7 time at University of Rochester who had been
8 trained in that program during this time
9 period, and then had worked for Kodak for a
10 number of years, and then returned to the
11 University. I have no idea if he is still
12 there or what's happened to that, but there is
13 that, and a fairly active radiation safety
14 office.

15 I don't know if you have talked to
16 some of those people as sources, but seems to
17 be there might be some people who would have
18 known what might have happened to the records.

19 I'm not going to guarantee it will help, but
20 it may be another source.

21 CHAIRMAN ZIEMER: Well, I saw in
22 the list that a radiation safety officer was

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1 one of those interviewed. I don't know if it
2 was the current one or a past one. Do you
3 recall, Lara?

4 DR. HUGHES: Yes. We interviewed
5 the current Radiation Safety personnel and
6 some -- I think, two past, two people who
7 worked in radiation safety in the past, might
8 have actually been three.

9 CHAIRMAN ZIEMER: LaVon Rutherford
10 had a comment, too.

11 MR. RUTHERFORD: I wanted to make
12 it clear, this is a Department of Energy site.
13 Therefore, the employees that are -- only
14 Department of Energy employees, contractors
15 and subcontractors are covered. Students
16 would not be covered under this.

17 CHAIRMAN ZIEMER: But the students
18 on the fellowships who were -- I don't know
19 whether you would say they were under
20 contract. The students in that program were
21 actually paid by ORINS, because it was part of
22 the Oak Ridge Institute of Nuclear Studies,

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1 the AEC fellowship program.

2 I assume those would be covered, if
3 they were there the 250 days. Most of them
4 were only there for the summer.

5 MR. RUTHERFORD: Yes. You would
6 have to verify -- they would have to verify
7 the 250 days, and I certainly don't want to
8 speak for the Department of Labor, but --

9 CHAIRMAN ZIEMER: Right. But a
10 student who wandered in there from another
11 part of the campus, since they are not an
12 employee or a subcontractor, would not be
13 covered in any event?

14 MR. RUTHERFORD: That is correct.

15 CHAIRMAN ZIEMER: Yes. Thank you.
16 Dr. Lockey?

17 MEMBER LOCKEY: Was there a number
18 on that building?

19 DR. HUGHES: It was called the
20 Medical School Annex or just the Annex.

21 MEMBER LOCKEY: Medical School
22 Annex?

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1 DR. HUGHES: Yes, Medical School
2 Annex. It was an annex to the medical school
3 building or the hospital.

4 MEMBER LOCKEY: So you had to work
5 within the Medical School Annex?

6 DR. HUGHES: That is correct, on
7 the project.

8 CHAIRMAN ZIEMER: Are there other
9 questions? Dr. Melius, did you have an
10 additional question?

11 MEMBER MELIUS: No. I'm just
12 trying to jog my memory.

13 CHAIRMAN ZIEMER: In terms of those
14 follow-up things that you were referring to,
15 those would be things that might be used to
16 reconstruct dose in those cases that didn't
17 qualify, if this were an SEC. Is that what
18 your implication was, or were you concerned
19 that we get that information prior to taking
20 action? I am trying to get a feel for it.

21 MEMBER MELIUS: My guess is that it
22 wouldn't be -- I don't think it would be the

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1 treasure trove of all personnel records,
2 though some of the records were fairly
3 extensive. I just have no idea what were
4 kept.

5 I know for some other facilities
6 that were under state regulation, the state
7 was given -- State Health Department ended up
8 with all of their monitoring and personnel
9 records.

10 CHAIRMAN ZIEMER: This was a group
11 within the state Labor Department or state
12 Public Health?

13 MEMBER MELIUS: The radiation
14 control -- I don't know what it is called
15 within the Labor Department. Within the state
16 Health Department it is the Bureau of
17 Radiation Protection.

18 CHAIRMAN ZIEMER: Do we know if
19 they were one of the information sources? Dr.
20 Neton, do you have --

21 MR. ELLIOTT: I could be wrong, but
22 I don't know that the particular sources that

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1 were used for this facility would have been
2 licensed by the state. They were under AEC
3 control, such as the alpha emitters, the
4 uranium, plutonium and such.

5 I know when I was at New York
6 University we had a number of sources, and I
7 don't believe we actually were required to be
8 licensed by the state for the AEC-type work we
9 were doing. I don't know. That is my guess.

10 DR. HUGHES: I could maybe answer
11 to that. We did contact the state authority
12 that was pointed out to us by the radiation
13 safety personnel at University of Rochester
14 where, historically, they were interacting
15 with regarding their license information or
16 their licenses.

17 So this agency was contacted, but
18 no monitoring data was found. We found a
19 considerable amount of license information for
20 this facility but no internal monitoring data.

21 MEMBER MELIUS: As I said, the
22 Labor Department had -- again, I am just -- I

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1 don't know jurisdiction. It changed over time
2 and so forth. So there was -- and within the
3 state, who regulated what changed and so
4 forth, and the three agencies fought with each
5 other and all that usual bureaucratic stuff,
6 but it just would be worth contacting to see
7 if they have some information that would be
8 helpful.

9 I know the former director. I can
10 even give you the name of a person to contact
11 on the Health Department side. I don't know
12 who runs that bureau now.

13 CHAIRMAN ZIEMER: Thank you. Dr.
14 Lockey.

15 MEMBER LOCKEY: I know at my
16 university that we were digging for records
17 for a study that was done in 1975, and nobody
18 thought the records were available, but the
19 records, in fact, were available in some
20 basement, in some room; because universities
21 just don't get rid of such things.

22 So I would be -- it would be

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1 unlikely that monitoring data doesn't exist
2 someplace, especially in a university setting,
3 especially as you go up through the 1960s and
4 early 1970s.

5 CHAIRMAN ZIEMER: Thank you. The
6 issue before us is the recommendation itself.
7 The recommendation would be to add a class to
8 the SEC for the specified period. Do you wish
9 to take action at this point? If so, a motion
10 would be in order. Dr. Lockey?

11 MEMBER LOCKEY: My opinion is that
12 we should maybe spend a little extra effort to
13 see what may be available at the state and
14 perhaps also at the university. It may take
15 some time. It may take some on-site personnel
16 looking around.

17 I don't think a phone call would be
18 adequate, because more likely than not, you
19 are going to get a blow-off, but if you are on
20 site and say we are here and this is our goal
21 and we need to make sure there's -- know what
22 is in the facility. I think it is worthwhile

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1 doing that.

2 DR. HUGHES: May I point out
3 something?

4 CHAIRMAN ZIEMER: Yes, of course.

5 DR. HUGHES: There were actually
6 three or four data capture trips to the
7 university, and NIOSH collected all of the
8 available dosimetry data for the entire
9 university, not just AEP. We've got all
10 external dosimetry data that was available at
11 the site, and it was a fairly thorough search
12 through all health and safety records with the
13 aid of two of the current health physics
14 personnel, and we just have not been able to
15 find any internal data.

16 There is, especially in later
17 years, a very large amount of external data
18 for employees of the entire university that
19 worked with radioactive materials. So I am
20 not very confident that, if the university was
21 contacted again, there would be anymore
22 information found.

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1 CHAIRMAN ZIEMER: I guess one of
2 the questions would be, for example, the
3 contact that you mentioned, Jim -- would they
4 be likely to have the monitoring data or is it
5 likely that monitoring data exists outside of
6 this, what appears to be all of the -- you
7 have records covering the full span of years,
8 it sounds like, at least external and some
9 internal.

10 DR. HUGHES: Yes. It starts in
11 1947. So the university was very diligent
12 keeping records. However, there are no
13 internal records. They have no idea where
14 they went or if they even existed, really. So
15 it was kind of odd, but --

16 CHAIRMAN ZIEMER: You had a large
17 number of references in your list, some of
18 which were historical descriptions of the
19 program. I think Dr. Stanard's book was
20 listed in there, amongst others, and I have to
21 admit I haven't read that full volume, but it
22 is pretty thick.

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1 I am wondering if any of those
2 described internal monitoring program that --
3 you know, do we know one existed but can't
4 find the records or are there hints that they
5 just didn't have a complete internal
6 monitoring program or some of the nuclides
7 they did not have the ability to do bioassay
8 on in the early days or -- what can you tell
9 us about that?

10 I am trying to get a feel for
11 whether it is fruitful to interview other
12 people who may give us some information, but
13 are they likely to have internal dose records
14 that aren't otherwise available? That is sort
15 of my issue. Maybe, Dr. Hughes, if you could
16 respond, and maybe, Jim, you have a related
17 comment.

18 DR. HUGHES: Yes. We have
19 indications that for the operations of the
20 Alpha Laboratory there was a more or less
21 routine bioassay program for those employees,
22 and the data analysis was for polonium-210.

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1 We have some summary data from one
2 year that discusses that about 97 individuals
3 were monitored for polonium. However, we do
4 not have the actual monitoring data.

5 So there are some indications that
6 some internal dosimetry data existed, but we
7 do not have it.

8 Now even if the polonium data was
9 found, it is not clear if other radionuclide
10 internal data could be reconstructed or if it
11 existed. We only have a clue that, for this
12 Alpha Laboratory facility, there was some
13 data, and that it is missing, that we could
14 not find it.

15 CHAIRMAN ZIEMER: Dr. Melius?

16 MEMBER MELIUS: Yes. The thing
17 that makes me a little -- I agree with Jim
18 Lockey -- surprised in some ways the records
19 aren't available, because -- I was never
20 directly involved in looking at the program,
21 but it dealt with both the radiation safety
22 people as well as the physicians, and then was

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1 in the Department of Preventive Medicine.

2 They were always very outspoken
3 about how good their program was over time
4 and, obviously, with the human experimentation
5 issue, they are upset about the revelations
6 about that part of the program and so forth.

7 I would think they would have
8 maintained records, but again, things change
9 over time. They could have been shipped off
10 someplace. Who knows? Again, I don't know
11 who you talked to. I don't remember all the
12 names either off the top of my head.

13 One thought would be -- I mean, I
14 don't think it would take a long time to get
15 the information from either this State
16 Department of Labor or in the State Health
17 Department. I mean, I have contacts in both
18 who could tell us -- if we deferred action on
19 this until our conference call in December?

20 CHAIRMAN ZIEMER: This can
21 certainly be done. I think it is at the
22 pleasure of the Board what direction you wish

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1 to take. We have heard a couple of
2 expressions of a desire to follow up. I don't
3 know how widespread that is. Dr. Lockey?

4 MEMBER LOCKEY: For example, at the
5 University of Rochester, when a new Department
6 chair comes in, they are sort of in charge of
7 what goes in and what goes out of the
8 department, and one of the avenues I would
9 pursue is go back in history of the
10 department, look who the department chairs
11 were, who the business managers were at that
12 time.

13 If they are alive, re-contact them
14 and sort of reconstruct to a certain degree
15 what happened to the records when you took
16 over, because the program was -- becomes
17 defunct, and they are responsible for doing
18 something with the records.

19 So that is a type of exploration
20 you could do. It would be unusual that there
21 aren't some records available somewhere.

22 MEMBER MELIUS: Jim and I also have

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1 a contact currently in the department who is
2 in a slightly different department, but has
3 been active in -- he is active in department
4 of health. I don't know who chairs the
5 department now, but they have a fairly active
6 preventive medicine department.

7 CHAIRMAN ZIEMER: You have looked
8 at a number of individual dose cases. I don't
9 recall the number.

10 DR. HUGHES: Yes.

11 CHAIRMAN ZIEMER: Were the records
12 for those from a master list or some
13 individual files? Let me give you an example,
14 and I will use my university as an example.

15 For dose records where you have a
16 film badge service, we have a master list, and
17 you can go to the master list and pick off all
18 the people and find their doses.

19 If you wanted to find an internal
20 dose record, you would have to go to that
21 individual's file in the Radiation Safety
22 Office, because there is not a master list at

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1 our place of all internal dosimetry. It is
2 done on a sort of as needed basis, and the
3 results go into an individual file.

4 I don't know how typical that is,
5 but I am wondering if, on the cases that you
6 have looked at and you have the medical
7 information and so on, do you have things from
8 their file that comes out of the Radiation
9 Safety Office?

10 DR. HUGHES: For the individual
11 claims that we have, we have only seven, and
12 the one claim that has external dosimetry data
13 available is in the form of summary data for
14 that particular year that this individual
15 worked there. There is no individual data.

16 Now after some repeated visits to
17 University of Rochester site, at about the
18 same time these visits took place, the
19 university was in progress of microfiching the
20 entire external dosimetry record, and they
21 were so nice as to provide us with these
22 files. So we have all, and it is these

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1 computer printout sheets that are not in
2 individual worker files.

3 The data capture trips looked
4 through the entire filing -- the entirety of
5 the filing cabinets that were available in the
6 Radiation Safety Office. I was not actually -
7 - I was not personally there. So I cannot
8 really tell you how they were structured, but
9 I can certainly find out.

10 CHAIRMAN ZIEMER: Well, and this
11 may be something if we do a follow-up to look
12 into. But, for example, this time period
13 covers the period where the AEC, NRC began to
14 require lifetime records and calculations of
15 the 5 times n minus 18, and you have to have
16 also on file certain records, previous dose
17 histories and those kinds of things.

18 So in almost every case you had to
19 have a personal file on each radiation worker,
20 and this, at least in our case, would be the
21 source of both an individual record of
22 bioassay as well as what isotopes they were

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1 approved to use and all of that kind of thing.

2 That is why I asked the question.

3 I don't think places like universities
4 necessarily have a master list of bioassay
5 like they would a film badge report from, say,
6 a commercial company. It's just a thought
7 there.

8 Other comments? Otherwise, we need
9 an appropriate motion to either recommend this
10 SEC or to explore further avenues. We have a
11 comment from Wanda Munn.

12 MEMBER MUNN: It would seem when we
13 have a Board member available to us with the
14 authority of associations that Dr. Melius has
15 and who has offered to take advantage of those
16 of those associates in order to provide us
17 with some potential additional information
18 that it seems to me most Board members feel it
19 must be out there somewhere. It would be
20 remiss of us not to take advantage of that
21 offer, it seems to me.

22 I would recommend that the Board

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1 consider postponing further action on this
2 until Dr. Melius has had an opportunity to
3 pursue the potential of additional information
4 until at least such time as we convene by
5 telephone or until we convene in person again.

6 CHAIRMAN ZIEMER: So your motion
7 is to defer action pending receipt of that
8 information? You are not necessarily
9 recommending a formal work group or anything
10 of that sort, but at least a sort of a
11 preliminary exploration of potential
12 additional information?

13 MEMBER MUNN: That is correct.

14 CHAIRMAN ZIEMER: You have heard
15 the motion. Is there a second?

16 MEMBER PRESLEY: Second.

17 CHAIRMAN ZIEMER: The motion as
18 expanded upon by the Chair. Okay, let's
19 discuss that.

20 So if this motion passes, we would
21 simply allow some time to elapse while perhaps
22 Dr. Melius had a chance to determine whether

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1 there is some fruitful contacts out there, and
2 then the answer to that is yes or no, at which
3 point we can decide what to do with that. We
4 could discuss that at our December Board
5 meeting. Would that be everybody's
6 understanding, if we approve the motion?

7 Any questions? If you are
8 comfortable with that or not comfortable, it
9 is time to say so, particularly if you are not
10 comfortable with that motion. This is not --
11 this is a bit like a motion to table. It is
12 an action to defer, but it has a specific time
13 associated with it so that, by passing the
14 motion, we agree that it will be discussed at
15 the next meeting, and we will get a report
16 from Dr. Melius on his findings and whether or
17 not we can proceed further.

18 Larry, do you have something to
19 inform us on or enlighten us here?

20 MR. ELLIOTT: Well, I would like to
21 say that we are pretty confident that we've
22 got everything that the university has to give

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1 us. I mean, to go back there -- I understand
2 Dr. Lockey's comment about department chairs
3 and that, but you know, I am pretty confident
4 that their data retrieval folks have made
5 every effort for the university holdings.

6 I think, though, that we could have
7 done a better job maybe touching a different
8 state -- We are not familiar, as Dr. Melius
9 is, with the different state agencies that
10 might have had some of this data, and so it
11 might be useful to at least touch the stone
12 with those folks and make sure that we didn't
13 miss something there.

14 CHAIRMAN ZIEMER: Thank you. That
15 is helpful. Okay, I think -- Oh, Josie?

16 MEMBER BEACH: Dr. Hughes, I
17 believe you mentioned it, but I wanted to
18 make sure that you were going to send us out
19 the correction to the last slide, the summary
20 slide prior to our next telephone call.

21 DR. HUGHES: Yes.

22 MEMBER BEACH: Thank you.

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1 CHAIRMAN ZIEMER: Are we ready then
2 to vote on the motion to defer action? Okay,
3 by voice vote, all in favor, Aye? Opposed,
4 No? And any abstentions? The motion carries,
5 and this will come before us at our conference
6 call in December, at which time Dr. Melius
7 will report to us, and then we can either
8 proceed to make a recommendation on an SEC or
9 we can proceed to take additional action as
10 may be deemed appropriate. Thank you.

11 I was looking here to see how we
12 stand on items. I am going to ask LaVon if
13 you can tell me, number one, do you need a
14 half-hour for the SEC update; and number two,
15 are you prepared to give it today?

16 MR. RUTHERFORD: You know --

17 CHAIRMAN ZIEMER: No, and no?

18 MR. RUTHERFORD: -- if I did, I'm
19 sure I can handle it.

20 CHAIRMAN ZIEMER: In less than half
21 an hour?

22 MR. RUTHERFORD: Yes. Well, I

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1 don't know. It depends on how many questions
2 are asked.

3 CHAIRMAN ZIEMER: Well, we have set
4 aside tomorrow morning a session called SEC
5 Petition Update, and I was asking if, in fact,
6 does that take a full half-hour? We are
7 scheduled to -- I thought that I did, hang on.

8 The question was did I check to see if the
9 petitioner was on the line for Rochester. I
10 thought I did, but I can't remember now doing
11 it, actually. Hold on, LaVon. Let me just
12 check.

13 Is the University of Rochester
14 petitioner on the line today?

15 MS. KESTEN: I am a petitioner.

16 CHAIRMAN ZIEMER: For the
17 University of Rochester?

18 MS. KESTEN: I am a petitioner.

19 CHAIRMAN ZIEMER: For the
20 University of Rochester?

21 MS. KESTEN: Yes.

22 CHAIRMAN ZIEMER: Yes? Okay. Very

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1 good. Have you heard our previous discussion
2 on the petition for the University?

3 MS. KESTEN: Yes, I have.

4 CHAIRMAN ZIEMER: Okay. And did
5 you have additional comments? If you did, you
6 may wish to identify yourself and make
7 additional comments.

8 MS. KESTEN: Well, my name is
9 Dorothy Kesten, and I worked at the University
10 of Rochester Project Center from September 1st
11 through 19th, and it indicates to me that
12 there was no data that you could find, and a
13 lot of this conversation was for the period
14 after that.

15 CHAIRMAN ZIEMER: We are talking
16 about the period from 1943 to 1971.

17 MS. KESTEN: Well, I only worked
18 there from September 1st to June 19th, 1945,
19 and it seems to me -- it sounded to me like
20 there wasn't any data for that period of time.

21 CHAIRMAN ZIEMER: That period of
22 time is covered in this discussion that we

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1 had. That is correct.

2 MS. KESTEN: Okay. Is there any
3 way I can get a copy of the conversation from
4 Dr. Hughes?

5 CHAIRMAN ZIEMER: Exactly? We can
6 provide you with a copy of the -- do you have
7 a copy of the evaluation report which Dr.
8 Hughes summarized? If not, we will make sure
9 you get that, and we can also, I believe --
10 can we provide a copy of the PowerPoint
11 presentation?

12 MS. KESTEN: And the motion that
13 was made?

14 CHAIRMAN ZIEMER: And we will make
15 sure that you get a copy of that. The motion
16 that was made was simply to -- that this Board
17 would defer action to our December meeting
18 until Dr. Melius has an opportunity to check
19 on the possibility of additional records with
20 a state agency there in New York, but we will
21 make sure you have all the documents involved,
22 and you will hear from one of the NIOSH staff

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1 members with that information and the
2 opportunity to follow up, if you need to, as
3 well.

4 MS. KESTEN: Thank you very much.

5 CHAIRMAN ZIEMER: Thank you.

6 Then I will ask again, LaVon. What
7 I was asking was do you have more than 15
8 minutes of actual presentation?

9 MR. RUTHERFORD: More than 15?

10 CHAIRMAN ZIEMER: Yes. Well, we
11 had scheduled you for 30 minutes. I wasn't
12 sure whether you were wanting to take that
13 all. It's all right. I think we would rather
14 do it today.

15 MR. RUTHERFORD: I think we can
16 knock it out pretty quick. Let's go ahead and
17 do it.

18 CHAIRMAN ZIEMER: Let's do it. I
19 think we would -- particularly, you know, we
20 are going to get into mid-day tomorrow, and
21 people are going to be wanting to catch
22 planes. So I would like to cover this, if we

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1 can. We have time to before five o'clock,
2 certainly.

3 MR. RUTHERFORD: I think most of
4 the -- a lot of the information has been
5 discussed already.

6 CHAIRMAN ZIEMER: Exactly.

7 MR. RUTHERFORD: I guess I can go
8 ahead?

9 CHAIRMAN ZIEMER: Yes.

10 MR. RUTHERFORD: All right. I am
11 LaVon Rutherford, and thank you, Dr. Ziemer,
12 for letting me do this today.

13 CHAIRMAN ZIEMER: If you would like
14 a more formal introduction, I will go back.

15 MR. RUTHERFORD: No. Thank you.

16 I am going to give an SEC petition
17 status update. We do this at every Board
18 meeting. We do it to provide the Board
19 information about existing petitions that we
20 have, the process, where they are, and
21 hopefully, this information provides the Board
22 enough information to prepare for future work

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1 groups meetings and future Advisory Board
2 meetings.

3 As of October 5, 2009, we have 153
4 petitions, and I didn't get an e-mail today
5 that it went up. So I am assuming it is still
6 that. We have five that are in the
7 qualification phase. We have 84 petitions
8 that are qualified, and we have three
9 evaluations in progress.

10 We completed 81 evaluations, and we
11 had 24 SEC petitions that are with the
12 Advisory Board for recommendation, and we had
13 64 petitions that have not qualified -- or
14 that did not qualify.

15 Okay. A little status: we have a
16 few petitions that are in the evaluation
17 process. Hangar 481 at Kirkland Air Force
18 Base, which is just outside Sandia or part of
19 Sandia. We anticipate that report completed
20 in February of 2010.

21 We have the Weldon Springs plant.
22 All employees from January '57 through

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1 December 31, 1966, and we anticipate that
2 report completed in February.

3 St. Louis Airport Storage Site,
4 which is a site that stored some byproduct
5 material for Mallinckrodt. We anticipate that
6 report completed in March of 2010.

7 These are evaluation reports that
8 are with the Board: Chapman Valve. We have
9 completed all actions on that one.

10 Blockson Chemical. NIOSH feels we
11 have completed all actions on that one, and it
12 is with the Advisory Board for recommendation.

13 Feed Material Production Center.
14 There are still some discussions ongoing, a
15 few minor issues that we are trying to work
16 out, and it is with the work group and SC&A
17 and NIOSH.

18 Bethlehem Steel. Again, we feel we
19 have completed all actions on Bethlehem Steel,
20 and it is with the work group.

21 Hanford. We did take action on --
22 additional action on Hanford, but this is the

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1 evaluation that actually the initial one for
2 SEC 57, and there's still some ongoing work to
3 look at the post-1972 period.

4 Nevada Test Site. Again, research
5 and discussion continues on the petition. We
6 have a couple of issues that I think that are
7 still outstanding, and the work group is
8 trying to resolve. Hopefully, we will come to
9 resolution on that one soon.

10 The Mound Plant. Again, research
11 and discussion continues. They are still
12 resolving some issues, the work group, SC&A
13 and NIOSH.

14 Texas City Chemical. This one is
15 we are issuing a revised evaluation report for
16 Texas City Chemical that will include
17 additional information that we received after
18 we -- right when we initially approved our
19 first evaluation. I anticipate after that
20 comes out that there will be some additional
21 activities that will occur with the work
22 group.

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1 Area 4, Santa Susana. Again,
2 research and discussion continues on this
3 petition. We are finalizing a period where we
4 believe that we are going to pursue an 8314 to
5 add additional years at Santa Susana. We are
6 finalizing the end dataset. We anticipate
7 that that will hopefully be out. That report
8 will be ready to be out for the February Board
9 meeting.

10 Dow Chemical. We had some
11 additional issues -- findings identified based
12 on the SC&A review of the Dow Chemical
13 appendix, which kind of tied to the work
14 group's evaluation of the addendum that NIOSH
15 presented. We are working through resolution
16 of those issues at this time.

17 Pantex. Research and discussion
18 continues on this with the work group, SC&A
19 and NIOSH.

20 Savannah River. We have been
21 resolving some -- finalizing some issues and
22 some papers that will be presented to the work

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1 group. We anticipate that happening very soon
2 for the work group to continue. We will be
3 issuing an addendum as well to outline our
4 decision on the feasibility for thorium.

5 General Steel Industries. There
6 was a recent work group meeting. There have
7 been work group meetings with the other ones I
8 discussed as well, too. But this one just
9 happened recently. Research and discussion on
10 this one continues.

11 LANL. Again, research and
12 discussion on the petition continues amongst
13 the work group, SC&A and NIOSH.

14 Linde Ceramics. We recently had a
15 work group meeting on Linde Ceramics, went
16 over some issues, and it is in NIOSH's court
17 to provide some updates for that. We
18 anticipate that happening fairly soon in
19 support of a November work group meeting.

20 Oak Ridge Hospital. The work group
21 made the recommendations. The Board took
22 action on that petition at this Board meeting.

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1 Bliss & Laughlin. We presented our
2 evaluation report at this Board meeting, and
3 that has been sent to the work group.

4 Electromet. Again, we presented
5 the evaluation report today. It has been sent
6 to the work group, I believe.

7 United Nuclear. We actually
8 completed this evaluation report awhile back.

9 However, the petitioner requested early on --
10 fairly early on, a few months ago -- that we
11 delay presentation to this, because the
12 petitioner wanted to be in person for the
13 meeting, and she was unable to be here at the
14 time. So the Board granted that.

15 Metals & Controls. We presented
16 that evaluation at this Board meeting. The
17 Board concurred with our recommendation to add
18 the class.

19 University of Rochester. We just
20 had that presentation, and we got a little bit
21 more work to do.

22 Piqua Organic Moderated Reactor.

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1 We just had that presentation a little earlier
2 today, and the Board concurred with NIOSH's
3 recommendation to add a class, and deferred
4 action on the operational period.

5 Brookhaven National Lab. That
6 report was done yesterday, and the Board
7 concurred with NIOSH's recommendation to add
8 the class. They also anticipate assigning
9 additional work to evaluate NIOSH's decision
10 that dose reconstruction was feasible for the
11 post-1980 period.

12 And then the Hanford petition that
13 we just presented earlier today. This was an
14 8314 that added a class up to 1972, and the
15 Board took action on that today as well.

16 A little additional information. I
17 don't have it as a slide. We do anticipate
18 that there will be four to five 8314s that we
19 anticipate moving forward at the February
20 Board meeting.

21 One of those, I misspoke the other
22 day. I indicated to Dr. Melius that we had

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1 already taken action on Lawrence Livermore
2 National Lab to change the class definition.
3 In my mind, we had already done that, but the
4 report is not done. Lawrence Livermore
5 National Lab, we will be doing -- we will
6 actually finalize our 8314 that will change
7 the existing class from monitored to all
8 employees at Lawrence Livermore National Lab.

9 I said that when I was speaking to
10 you. Then as I walked back, Dr. Glover
11 reminded me that we had not approved that
12 report yet. So I wanted to get that on
13 record, that that has not been approved yet.

14 We also will be presenting --

15 MEMBER MELIUS: We have our review
16 of it in our mind already.

17 MR. RUTHERFORD: We also will be
18 presenting 83.14s on Lawrence Berkeley for the
19 early years at Lawrence Berkeley, which had
20 some of the same early uranium enrichment
21 operations that we have dealt with, with
22 Westinghouse Atomic Power Development and a

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1 few others.

2 General Electric Evendale. We are
3 moving forward on the 83.14 on that.

4 I believe there is one more, but
5 off the top of my head -- I would have been
6 prepared tomorrow for that, but there is
7 another one.

8 Do I have any questions?

9 CHAIRMAN ZIEMER: Thanks for that
10 update. Let's see if there are questions.
11 Anyone have a question in their mind? Okay,
12 well, that was good to have the update.
13 Always appreciate that. It helps us see what
14 is coming down the pike and what remains to be
15 done.

16 Dr. Melius?

17 MEMBER MELIUS: I might as well
18 harass LaVon a little bit. You can sit down.

19 To the extent you can get the 83.14 reports
20 to us sooner rather than later, it helps deal
21 with issues like this.

22 CHAIRMAN ZIEMER: Thank you.

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1 We will recess for the afternoon
2 session. There is a public comment session
3 scheduled for six o'clock, and then, of
4 course, we will be meeting again tomorrow. So
5 thank you very much. You've all been good
6 attendees today, and we appreciate your
7 participation.

8 (Whereupon, the foregoing matter
9 went off the record at 4:39 p.m. and resumed
10 at 6:01 p.m.)

11 CHAIRMAN ZIEMER: Here is Mr. Katz.

12 MR. KATZ: Thank you. So it looks
13 like we don't have anyone in the room, but for
14 those of you on the telephone, just to let you
15 know the ground rules: we have a verbatim
16 transcript of this session, public comment
17 session. That will be posted on the CDC-NIOSH
18 website that goes with this program.

19 So everything that is said will be
20 recorded and posted there in a transcript.
21 It takes about 30 days to do so, more like 45
22 days to do so.

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1 If you give your name -- you don't
2 have to give your name, but if you give your
3 name when we take comments, then your name
4 will appear in the transcript, and any
5 personal information you give about yourself
6 will also be retained in the transcript.
7 However, if you talk about a third party, any
8 details you give about that third party that
9 would be identifying of that party, including
10 their name, those will be redacted, meaning
11 whited out from the transcript. Those will
12 not show, be revealed to the public.

13 If you would like to see the full
14 redaction policy, this NIOSH-CDC website page
15 has the policy listed, along with -- well, it
16 is listed in several sections, the Board
17 section, I believe. There is a section that
18 is devoted to this Advisory Board, and it is
19 posted there. That is probably the easiest
20 place for you to find it.

21 Thank you, Dr. Ziemer.

22 CHAIRMAN ZIEMER: Thank you, Mr.

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1 Katz.

2 Now I am going to begin by
3 introducing a person on the phone, but not by
4 name, but by nature of the comment. The
5 reason for that is I want to give a prelude to
6 an issue that will be raised and which will be
7 on the Board's work time agenda tomorrow.

8 One member of the public
9 representing a public group has asked that the
10 Board consider as part of its operating policy
11 the possibility of automatically tasking the
12 Board's contractor to begin work immediately
13 on SEC petitions in those cases where NIOSH
14 has in their evaluation report indicated that
15 they can reconstruct dose with sufficient
16 accuracy.

17 So the commenter wishes to
18 elaborate on that a bit and indicate why she
19 believes this would be a good policy for this
20 Board to follow.

21 Now we will have an opportunity as
22 a Board to debate the matter tomorrow. So I

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1 don't want to sort of prejudge the issue, but
2 simply give this member of the public the
3 opportunity to make her case for that
4 particular position and related matters. She
5 may also have additional comments not related
6 to that, but I did promise her the opportunity
7 at this public session to make comments on
8 that.

9 So I will not call the individual
10 by name, but she will identify herself, I am
11 sure. So if that individual now is on the
12 line, it would be appropriate to make those
13 comments.

14 MS. BONSIGNORE: Yes, hello. This
15 is Antoinette Bonsignore for the Linde
16 Ceramics facility.

17 CHAIRMAN ZIEMER: Yes, Antoinette.
18 Please proceed.

19 MS. BONSIGNORE: Okay, thank you,
20 Dr. Ziemer.

21 The issue that Dr. Ziemer raised
22 is, I think, a very important matter for the

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1 Board to consider. As the Linde Ceramics
2 petitioner, I have found that having SC&A's
3 involvement in the SEC evaluation process from
4 the very beginning before the full
5 presentation of the petition to the Board has
6 been an invaluable resource to me as well as
7 to the workers I represent.

8 The workers have been able to
9 review the material that SC&A has provided to
10 us, and have been better able to understand
11 the technical nature of what is involved in
12 the NIOSH evaluation process and the reasons
13 why NIOSH is recommending that SEC status be
14 denied for this petition.

15 I think that the issue really comes
16 down to how the Board views the role of the
17 petitioner in the SEC evaluation process. If
18 the Board considers that petitioners should be
19 participants in this process, not only in
20 terms of getting the petition prepared and
21 qualified for review, but also being able to
22 respond and fully understand the reasons why

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1 NIOSH does not recommend SEC status, then
2 SC&A's involvement in the review process
3 should begin at the very outset once the
4 petition is qualified and once a petition
5 evaluation report has been produced in order
6 for petitioners to be able to respond to NIOSH
7 in an effective and in a cogent manner.

8 Otherwise, the petitioner really
9 becomes a collateral part of this whole
10 process, and they can't really fully and
11 effectively participate in the discussion
12 between NIOSH and the Advisory Board, and it
13 really becomes an evaluation process where it
14 becomes a back and forth between NIOSH and the
15 Advisory Board, and it effectively excludes
16 the petitioner from the process.

17 Again, you know, the fact that SC&A
18 has provided the material that they have
19 provided for the Linde petitioners to date has
20 been fully very, very important for us, and it
21 has really provided information for the
22 workers that I represent, and I think that

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1 that type of information does become very
2 important for all petitioners.

3 CHAIRMAN ZIEMER: Okay, thank you
4 very much. Did you have any additional
5 comments on that then or other issues?

6 MS. BONSIGNORE: I actually had two
7 additional comments. Regarding the Electromet
8 SEC petition, I did manage to get in contact
9 with one of the SEC petitioners, and I think
10 he will be calling in to make a statement. So
11 I just wanted to let you know that.

12 The final point I wanted to make
13 was I had submitted a request to the
14 Department of Labor for information on the
15 percent of the claims that are denied under
16 the dose reconstruction that have been
17 processed through the Final Adjudication
18 Branch appeals program.

19 So what I was asking for was
20 information about whether the percent of
21 success or the probability of success once a
22 dose reconstruction claim is denied and then

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1 that claimant appeals the denial through the
2 FAB. What is the chance that those claims
3 will eventually be compensated?

4 I put that request in to Rachel
5 Leiton at the Department of Labor, and she
6 stated in a letter to me on August 21st of
7 this year that -- and I will read the exact
8 statement. She says, "Our database does not
9 track statistics on the success rates of
10 appeals on claims denied, because NIOSH --
11 because the National Institute for
12 Occupational Safety and Health dose
13 reconstruction led to a probability of
14 causation under 50 percent."

15 I think that this kind of
16 information would be very valuable to
17 claimants to get a clear understanding of the
18 utility of appealing a denied claim through
19 the Final Adjudication Branch.

20 Ms. Leiton claims that the DOL
21 database does not track this information. If
22 it does not, I believe it should, and that

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1 kind of information should be provided in an
2 open manner, either on the NIOSH website or
3 the Department of Labor website. And since
4 that kind of information is not subject to a
5 FOIA, I think it would be important for NIOSH
6 to gather that kind of information and provide
7 it to claimants at the website.

8 CHAIRMAN ZIEMER: Thank you for
9 that comment. Since that is actually a
10 Department of Labor issue, as I would
11 understand it, it probably will not be
12 something NIOSH can handle directly.

13 I would simply point out there is a
14 person in our assembly here from Department of
15 Labor who has heard your comment. So at least
16 at that point, the comment is known to Labor.

17 That is something that actually is outside
18 the purview of this Board, but your point has
19 been heard.

20 MS. BONSIGNORE: Thank you, Dr.
21 Ziemer.

22 CHAIRMAN ZIEMER: Thank you. Let

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1 me ask if the Electromet petitioner is on the
2 line this evening, and if so, would the
3 petitioner wish to make any statement?

4 Okay. Let me ask for others who
5 may wish to make comment on the phone lines.

6 MS. WOJCIK: Yes. Regarding the--

7 CHAIRMAN ZIEMER: Please identify
8 yourself, if you wish to. You are not
9 required to.

10 MS. WOJCIK: I am Margaret Wojcik.

11 This was regarding the SEC class petition for
12 Bliss & Laughlin.

13 CHAIRMAN ZIEMER: Okay. We need
14 for the court reporter for you to spell your -
15 - oh, we have it? He has it. Okay. He is
16 very good. Thank you. You can proceed.

17 MS. WOJCIK: This is Margaret
18 Wojcik, Buffalo, New York, [identifying
19 information redacted].

20 Class evaluated by NIOSH, all
21 employees of the steel company. The date is
22 January 1, 1951, through December 31, 1952,

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1 and/or during the residual period from January
2 1, 1953 through December 31, 1998.

3 Now, the Department of Labor chose
4 to remove a couple of years. We originally
5 had 1948, and now it is changed to 1951. We
6 don't know if there is any proof that they
7 have gotten contractual information stating
8 that, yes, 1951 was the starting -- operating
9 time frame, starting 1951 instead of '48.

10 What I have brought up on the
11 Internet was a little bit stating beginning in
12 the early Forties, DOE and its predecessors,
13 the Atomic Energy Commission and the
14 Manhattan Engineering District relied upon
15 hundreds of private sector factories,
16 laboratories to develop tests and produce
17 atomic weapons for use by the military.

18 Now this says beginning in the
19 early Forties. Originally, we had 1948 date,
20 and now it is changed to '51.

21 Where I got this, I Googled Atomic
22 Workers/Louise Warner, a Congresswoman for

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1 Western New York.

2 I do want to know, when they
3 mentioned -- when air sample data is
4 mentioned, what are they saying, and how do we
5 know this is plausible information?

6 I know a lot of information is
7 taken from another facility, surrogate
8 information. How plausible is this?

9 The Advisory Board today did say
10 that our petition will be handled by a work
11 group. I'd like to know who the work group
12 is, and will they have all our documents, all
13 of the information that we have submitted over
14 the years? Thank you.

15 CHAIRMAN ZIEMER: Thank you very
16 much. Hang on just a moment. I am going to
17 give you some answers here, and then we will
18 have to follow up. Just a moment.

19 That has indeed been assigned to a
20 work group. It is a work group that we
21 designate as our TBD-6000 Work Group. That is
22 the work group that handles facilities such as

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1 Bliss & Laughlin, and that work group is
2 already -- has already been constituted, and
3 we will inform you of when that work group
4 meets next so that you will have an
5 opportunity -- you can be involved in the
6 activities of the work group in terms of being
7 either in person or by phone, whichever it may
8 be.

9 The work groups usually meet in
10 Cincinnati, and you will be able to fully
11 participate in those activities.

12 Some of the questions that you
13 asked are ones that the work group can deal
14 with more directly, and they will be glad to
15 do that. So we will try to keep you fully
16 informed as we progress both on the schedule
17 of activities as well as the topics and be
18 glad to receive information from you that
19 might be pertinent.

20 MS. WOJCIK: We will be hearing
21 from them within a few weeks or a few months?

22 CHAIRMAN ZIEMER: Actually, I can

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1 tell you that the work group already has a
2 meeting scheduled. I don't have the calendar
3 here -- but that work group will be meeting on
4 December 16th, and if you wish to call in and
5 participate by phone, we will provide you with
6 the call-in number.

7 And again, that meeting will be in
8 Cincinnati, and you are certainly welcome to
9 attend in person, if you so desire and are
10 able, but yes, we will -- if you will go ahead
11 and put that on your calendar and then you
12 will be informed of the call-in number.

13 MS. WOJCIK: Okay, we will write a
14 date. December 16th?

15 CHAIRMAN ZIEMER: That is correct.
16 Typically, the start time is 9:30 Eastern --
17 well, I think we are back to Standard Time by
18 then. So it would be 9:30 Eastern Standard
19 Time.

20 MS. WOJCIK: As you said, we will --
21 my sisters, myself, we will be getting
22 information on that?

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1 CHAIRMAN ZIEMER: You bet.

2 MS. WOJCIK: All right. Thank you.

3 CHAIRMAN ZIEMER: Thank you very
4 much. Just a comment from one of the Board
5 members here also. On the NIOSH web page, we
6 have a section that delineates the Board's
7 activities and schedules, and you can also
8 find that information there. The times and
9 dates of the work groups are posted there as
10 well.

11 MS. WOJCIK: Thank you.

12 CHAIRMAN ZIEMER: Okay.

13 MS. WOJCIK: Yes, thank you.

14 CHAIRMAN ZIEMER: Are there others
15 on the phone lines that wish to address the
16 assembly?

17 MS. HAND: Yes. My name is Donna
18 Hand.

19 CHAIRMAN ZIEMER: Okay. Is that
20 Donna Hand?

21 MS. HAND: Yes, it is.

22 CHAIRMAN ZIEMER: Yes, Donna.

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1 Please proceed.

2 MS. HAND: Okay. My first issue is
3 criteria or qualification under the SEC
4 petition and how it is used then to evaluate,
5 because the -- as you are well aware of --
6 Pinellas Plant filed a SEC petition, and one
7 of the issues is the metal tritides, but NIOSH
8 evaluated and said that we did not qualify.
9 So, therefore, we were denied, and the Board
10 was then denied a full evaluation as well as
11 the claimants.

12 This is an abuse of operational
13 procedures, since every other criteria in the
14 Federal regulation was met in that SEC
15 petition, and as of today's date NIOSH has
16 admitted they still cannot do the metal
17 tritides for Pinellas Plant.

18 Back in the Federal Registry of
19 2002, page 22321, it stated that single
20 exposures might also fall outside the scope of
21 ICRP models, such as a worker that inhaled
22 metal tritides. In these cases, NIOSH will

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1 have to use alternative metal models and
2 modify existing models.

3 In February, Larry Elliott has
4 stated that they can do the metal tritide dose
5 to the Pinellas plant workers. And again, as
6 of today's date, not one worker has had a
7 metal tritide dose put to them.

8 Then on April 24, 2009, under a
9 Freedom of Information Act, I requested the
10 upper bound of the uranium that was present at
11 the Pinellas plant, the upper bound for the
12 external doses for Area 108, Building 200, and
13 Building 400, the upper bound and lower bound
14 for the unmonitored dose of a worker at the
15 Pinellas plant for the years 1956 through
16 1997, the upper and lower bound for the
17 equipment that produces radiation at the
18 Pinellas Plant.

19 I still have not received that
20 Freedom of Information Act. The only thing
21 that I did receive was a letter that was not
22 on a letterhead and was not signed and stated

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1 that there was not guides at the Pinellas
2 Plant, which is in total disagreement with the
3 baseline report that was used as a reference
4 document for your technical basis document.

5 Laurie Breyer also went on to state
6 that they do not bound the doses, and they do
7 not have to use the technical basis documents
8 to determine the doses. It is all done on a
9 case -- individual case by case basis.

10 That's strange from all the
11 transcripts that I have read and going to the
12 Advisory Board, you continually mention can
13 you bound it. In 2009, Peter Darnell said,
14 "Pinellas was different from Mound in the case
15 that the tritide containment from the neutron
16 tube was a bit more spread out." In other
17 words, more of the workforce would be exposed
18 to it.

19 Again, these are issues that have
20 not been done. So why can't we have a SEC
21 petition for Pinellas Plant, because you are
22 not able to do the dose reconstruction for the

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1 metal tritides, and it is admitted in
2 documentation everywhere that these people
3 were exposed to that, and you cannot tell me
4 that that did not have a significant health
5 effect.

6 The second thing is this OCAS-1
7 form. Whenever we signed that OCAS-1 form, it
8 has to be clear and clean. When we dispute
9 and say you did not include the metal
10 tritides, you did not include the cuts and
11 wounds from radioactive producing equipment,
12 they inform us that they have to have a clean
13 one or they will wait the 60 days and send it
14 to Department of Labor without that OCAS-1
15 form.

16 When you get to FAB, where you are
17 supposed to be able to dispute the Part B and
18 the application of the methods, FAB then says,
19 well, you signed the OCAS-1 form; so
20 evidently, you gave them all the information
21 that was needed.

22 This is contradictory to a due

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1 process right for these claimants across the
2 board, and something needs to be addressed for
3 that, because there is either a way to appeal
4 the NIOSH dose reconstruction or have the dose
5 reconstruction, or at least their health
6 physicist address the concerns, and then issue
7 in writing to the claimants and tell us why
8 they didn't use that dose and base it on the
9 regulations and the law and the policy
10 procedure.

11 Basically, that's it for right now,
12 and I appreciate the Board's help, and we need
13 to have transparency across the Board
14 throughout the whole thing, because even in
15 the 42 CFR, NIOSH interpreted "reasonable
16 estimates of the doses for the claimants" and
17 that the claimants would not be harmed by any
18 level of uncertainty and that they will
19 consistently give the benefit of the doubt to
20 claimants; and that is not being done across
21 not only at Pinellas Plant, but at all the
22 sites. There are incidents of cuts and wounds

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1 that they are not addressing, because they
2 said, "there is no radiation health physicist
3 that addressed it; so, therefore, we are not
4 going to use it."

5 That is a dose. You have a
6 bulletin that says to use that dose for
7 internal calculations, and whenever a
8 gentleman is cut with classified waste or a
9 gentleman is cut in Building 200 where they
10 tested the neutron generator, and he is cut on
11 that neutron generating testing equipment
12 several times, but yet you do not allow it
13 into the dose reconstruction -- something is
14 wrong with the problem, and they did not
15 fulfill the 42 CFR 82 as far as uncertainty
16 and being claimant favorable.

17 Thank you very much for your time.

18 CHAIRMAN ZIEMER: Okay, thank you,
19 Donna. You have, obviously, raised quite a
20 few issues here. I do note that the chair
21 for the Pinellas Group is, of course, with us
22 here tonight and is cognizant of issues that

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1 you have raised.

2 I don't know to what extent the
3 work group can deal with those directly, but
4 certainly in a general sense, as needed, can
5 follow up as appropriate. So thank you for
6 those comments.

7 Let me ask if there are others on
8 the line who wish to comment?

9 MR. WARREN: Yes. This is Bob
10 Warren from Black Mountain, North Carolina.

11 CHAIRMAN ZIEMER: Hello, Bob.
12 Okay, go ahead, Bob.

13 MR. WARREN: I'm talking about the
14 Savannah River plant, the SEC. What I want to
15 comment on is that apparently there is a
16 requirement that information given to the
17 auditor contractors not -- there is a
18 requirement that it be sent -- the information
19 they've got be sent to NIOSH immediately, and
20 what happens is workers that want to talk to
21 the auditors about incidents not reported by
22 DOE are then having their names disclosed

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1 before the report is ready to be sent to the
2 Board, certainly by the time the auditors
3 finish their report.

4 At that point, it would seem like
5 it might be appropriate to disclose to NIOSH
6 the ones that want to be disclosed and to
7 redact the other workers, but it has had a
8 chilling effect on workers who want to give
9 the information that is not in the DOE
10 records, but then they may still be working at
11 the plant and their names are then disclosed
12 to NIOSH who then discloses them to DOE.

13 So I wish you all would take some
14 action to protect the information the workers
15 are giving and not have them disclosed
16 immediately but wait until the auditors can
17 follow the leads and interview other people
18 without giving that information to NIOSH
19 immediately.

20 CHAIRMAN ZIEMER: Thank you for the
21 comment. I don't have an immediate answer for
22 you, but I will certainly ask our folks here,

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1 starting with SC&A after we finish here
2 tonight, to look into that. I don't know if
3 that is fully correct or not. I personally do
4 not know.

5 I could ask John Mauro from SC&A
6 just for informational purposes what is
7 required of you on those kind of situations,
8 and are we talking about classified material
9 here?

10 MR. WARREN: No, not necessarily,
11 but --

12 CHAIRMAN ZIEMER: Okay, let me ask
13 John Mauro from SC&A what their understanding
14 of the requirement for them is.

15 MR. WARREN: All right.

16 CHAIRMAN ZIEMER: Normally, we
17 would just take your comments and pursue them,
18 but I do want to find out for myself.

19 MR. RIVER: Yes. Whenever we
20 interview anyone -- originally, we had a
21 prepared statement to let everyone know that
22 any material that is provided to us is

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1 material that will be subject to review by DOE
2 for sensitive information. So, therefore --
3 so that information is -- that person's
4 information is going to go to DOE.

5 CHAIRMAN ZIEMER: And the name?

6 MR. MAURO: And the name, because
7 DOE may very well want to follow up on that
8 information. Now, a little more recently, we
9 were also given certain information that says
10 any information that we collect, under
11 contract to NIOSH, is information that really
12 is the government's information. It is paid
13 for by the government. The government owns
14 that information, and we are required to
15 provide that information.

16 This is a relatively, I guess,
17 realization that where we may be taking some
18 notes or were provided. We, actually, in one
19 case very recently, a very recent case, we
20 were provided with a folder, a large folder of
21 information, some of which, when it was
22 delivered to our interviewee, was given to our

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1 interviewee with the proviso that at least
2 some of that information be kept confidential,
3 and it was given under those conditions.

4 We subsequently found out that we
5 can't do that. If we are given information
6 such as a folder, that information belongs to
7 the government. So we are in a situation now
8 where any information that we are given during
9 an interview is -- this is how we are
10 operating now -- is information that must be
11 made available to NIOSH.

12 If it contains Privacy Act
13 information, it is up to the Privacy Act
14 Office to make the judgment on what has to be
15 controlled as Privacy Act. It is not within
16 the purview of SC&A to do that.

17 So, yes, the reality is that the
18 point made by the folks on the phone is
19 correct. Now, we do inform everyone that any
20 information provided to us is information that
21 is going to be made available.

22 CHAIRMAN ZIEMER: Very good. Thank

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1 you, John, and thank you, Bob, for that.

2 MR. WARREN: Could I just speak to
3 that for a second?

4 CHAIRMAN ZIEMER: Yes, you may
5 certainly continue.

6 MR. WARREN: We are not quarreling
7 with the fact that some of this happens to be
8 -- or all of it has to go to DOE eventually.
9 The role of an auditor, in accounting and
10 otherwise, is to develop a report that is
11 going to the Board, and in order to protect
12 their leads of workers -- I mean, our whole
13 point at Savannah River is that there are not
14 DOE records available to adequately do the
15 dose reconstructions.

16 What we are trying to do is give
17 statements from workers who comment on
18 incidents that are not in the records or that
19 they are in the records, but DOE won't give
20 the records, whatever DOE says.

21 So it is not a question of if you
22 give the information. It is a question of

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1 when, and it seems like it is out of ordinary
2 for an auditor to have to disclose to the
3 people being audited the information that is
4 not in their records, and then they can argue,
5 well, we don't have those; therefore, these
6 aren't valid.

7 CHAIRMAN ZIEMER: Okay. I
8 understand your point, Bob. The only thing I
9 can tell you at this point is that the Board
10 can have further discussions on this at its
11 work group meeting, and we may very well be
12 bound by certain regulations dealing with
13 classified material. So I certainly can't
14 make you any promises.

15 MR. WARREN: I hear you. I just
16 wanted to bring that to the Board's attention,
17 that we are losing out on information that is
18 pertinent.

19 CHAIRMAN ZIEMER: I appreciate
20 knowing the point. Thank you very much.

21 MR. WARREN: Thank you.

22 CHAIRMAN ZIEMER: Let's see if

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1 there are others. Others on the phone lines
2 tonight?

3 MR. CIVILETTO: Yes.

4 CHAIRMAN ZIEMER: I feel like a
5 disk jockey here. Who else is on the phone
6 lines?

7 MR. CIVILETTO: Yes. This is Sam
8 Civiletto calling.

9 CHAIRMAN ZIEMER: Is it Dan?

10 MR. CIVILETTO: No, it is Sam
11 Civiletto.

12 CHAIRMAN ZIEMER: Okay, Sam. yes.

13 MR. CIVILETTO: Yes. I had -- I'm
14 sorry, can you hear me?

15 CHAIRMAN ZIEMER: Yes, we can hear
16 you.

17 MR. CIVILETTO: Yes. I had
18 requested an adjournment or to have my SEC
19 petition for the Electromet removed from the
20 Advisory Board's meeting, and I was out of my
21 office and came back this afternoon and was
22 advised that my request was denied without

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1 articulating a reason. I was just wondering
2 why it was denied.

3 CHAIRMAN ZIEMER: Yes. And we are
4 sorry we missed you on the earlier phone line
5 when we discussed the facility, and let me
6 sort of paraphrase what I told the group then.

7 This request came to me late last
8 week, well after our agenda had been
9 established. The usual practice of this Board
10 when we have an evaluation report where NIOSH
11 indicates it is able to reconstruct dose with
12 sufficient accuracy, the Board typically
13 assigns this activity to a work group and
14 tasks the Board's contractor to begin work on
15 reviewing the evaluation report.

16 If we did not proceed with the
17 presentation by NIOSH, typically that would
18 delay action by the Board to get underway with
19 its work group and with its contractor to
20 review the report.

21 We actually think it is to the
22 advantage of the petitioners for us to begin

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1 that work, because you have the opportunity to
2 be involved in that process. That is, all of
3 the work group meetings will be open to you to
4 participate in either by phone or in person.

5 We can assist you. I know one of
6 the concerns was the interpretation of the
7 technical content of the evaluation report,
8 and the work group can assist you, and our
9 contract can, in understanding those issues.

10 So in fact, although you had
11 requested the delay, I believe, because you
12 wanted some further time to review that
13 report, we felt it was important to move
14 forward and would be to your advantage to
15 actually be able to begin work immediately
16 with the work group and the contractor to
17 actually help resolve some of the issues that
18 you have raised and may raise in the future.

19 So that is the reason we proceeded.

20 We did try to provide that by e-mail to you
21 and the other petitioners that we intended to
22 keep that on the agenda, and I regret that

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1 you didn't get the message in time to actually
2 participate earlier today.

3 MR. CIVILETTO: Okay. Would it be
4 too late for me to submit something in
5 writing, because originally that is what I had
6 planned on doing, and then I decided that I
7 would ask that it be removed. So I didn't do
8 that. So I would like to submit something.

9 CHAIRMAN ZIEMER: You can certainly
10 do that, and this is not a closed issue. The
11 petition evaluation report and the action on
12 it will come up in future meetings or a future
13 meeting, certainly, but you can provide that
14 information at anytime, and we would certainly
15 be glad to get it, and we will distribute that
16 to all Board members.

17 MR. CIVILETTO: Yes. Well, I thank
18 you for your consideration and the time.

19 CHAIRMAN ZIEMER: You bet. Thank
20 you, Sam.

21 Are there others on the line
22 tonight that wish to comment?

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1 MS. BONSIGNORE: Dr. Ziemer, this
2 is Antoinette Bonsignore again.

3 CHAIRMAN ZIEMER: Yes, Antoinette?

4 MS. BONSIGNORE: I just wanted to
5 add a point that Mr. Civileto just made. I
6 believe in his letter to the Board that he was
7 not only asking for an adjournment, but he was
8 also asking for SC&A to be tasked to review
9 the evaluation report, so he would be better
10 able to understand what was contained in that
11 evaluation report before the presentation by
12 NIOSH to the full Board, as I have done in the
13 Linde Ceramics case.

14 CHAIRMAN ZIEMER: Yes. Well, of
15 course, SC&A has that task already now, and
16 the only real difference is that you may have
17 had that information at the time that the
18 report was given, but there will be ample
19 opportunity, I believe, for this petitioner to
20 gain that information and to interact and to
21 react to it.

22 So we will do our best to make sure

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1 that all the petitioners are fully informed,
2 not only of the actions but the opportunity to
3 air their concerns and their issues.

4 MS. BONSIGNORE: I appreciate that.

5 I just wanted to clarify that, you know, your
6 point of not adjourning the petition was that
7 you wanted for SC&A to begin review and for
8 the working group to begin review, but that is
9 what the petitioner was asking for, and they
10 were asking for that before NIOSH made its
11 presentation.

12 CHAIRMAN ZIEMER: Well, and our
13 practice has not been to task SC&A until we
14 ourselves see what the report has to say and
15 have an opportunity to respond to it. So it
16 is sort of a catch-22 in a certain way, but I
17 think either way, we will do our best to make
18 sure the petitioner has ample opportunity to
19 give us feedback.

20 So there is no intention to
21 foreclose that. We really wanted to move
22 ahead on this and make sure that we -- and as

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1 you say, or as I say, this is our usual method
2 on these to move ahead and do the tasking at
3 the time that we hear the report.

4 We ourselves, the Board members,
5 typically, are not in a position either to
6 respond to it, because it is very fresh to us,
7 and we have not fully digested it either.

8 MS. BONSIGNORE: Okay. Well, again
9 I just wanted to reiterate that I found that
10 having SC&A do the review in advance of
11 NIOSH's presentation was very valuable to me,
12 and I think it would be valuable to all.

13 CHAIRMAN ZIEMER: Well, there are
14 some cases where NIOSH -- or SC&A rather, has
15 already reviewed some facilities as part of
16 the site profile review, actually, prior to a
17 petition coming in.

18 So I don't recall. That may have
19 been the case in the Linde case, but there are
20 cases where we already have a review of sorts.

21 It may not be specific to the SEC petition,
22 but there are some cases where a review has

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1 occurred relating to the site profile, and in
2 those cases it does give a sort of pre-
3 opportunity to understand what the issues
4 might already be, even before the evaluation
5 report occurs.

6 So there are those differences in
7 certain cases like that.

8 MS. BONSIGNORE: Okay. Thank you.

9 CHAIRMAN ZIEMER: Okay. Good,
10 let's proceed. Who else would like to speak
11 tonight? Anyone else on the phone lines that
12 wishes to address the assembly? I hear no
13 others are indicating they wish to speak.

14 I do want to give opportunity if
15 someone has come in here that wishes to speak
16 but didn't have an opportunity to sign up
17 earlier. This is a good time to do that.

18 Okay. Apparently not. That being
19 the case, then I think we can adjourn the
20 session or recess until tomorrow morning. We
21 thank all those, particularly, who
22 participated by phone to assure us that we had

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1 business to do here when we all came here
2 tonight and didn't have any local ones to
3 speak. So thank you all for your
4 participation. We will recess until tomorrow
5 morning.

6 (Whereupon, the foregoing matter
7 went off the record at 6:42 p.m.)

8

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