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

convenes the

THIRTY-FIFTH MEETING

ADVISORY BOARD ON

RADIATION AND WORKER HEALTH

VOL. I

DAY ONE

ABRWH BOARD MEETING

The verbatim transcript of the Meeting of the Advisory Board on Radiation and Worker Health held at the Doubletree Oak Ridge, Oak Ridge, Tennessee, on January 24, 2006.

C O N T E N T S

January 24, 2006

TRANSCRIPT LEGEND

The following transcript contains quoted material. Such material is reproduced as read or spoken.

In the following transcript: a dash (--) indicates an unintentional or purposeful interruption of a sentence. An ellipsis (. . .) indicates halting speech or an unfinished sentence in dialogue or omission(s) of word(s) when reading written material.

-- (sic) denotes an incorrect usage or pronunciation of a word which is transcribed in its original form as reported.

-- (phonetically) indicates a phonetic spelling of the word if no confirmation of the correct spelling is available.

-- "uh-huh" represents an affirmative response, and "uh-uh" represents a negative response.

-- "*" denotes a spelling based on phonetics, without reference available.

-- (inaudible)/ (unintelligible) signifies speaker failure, usually failure to use a microphone.

P A R T I C I P A N T S

(By Group, in Alphabetical Order)

BOARD MEMBERS

CHAIR
ZIEMER, Paul L., Ph.D.
Professor Emeritus
School of Health Sciences
Purdue University
Lafayette, Indiana

EXECUTIVE SECRETARY
WADE, Lewis, Ph.D.
Senior Science Advisor
National Institute for Occupational Safety and Health
Centers for Disease Control and Prevention
Washington, DC

MEMBERSHIP

ANDERSON, Henry A., M.D.
Chief Medical Officer
Occupational and Environmental Health
Wisconsin Division of Public Health
Madison, Wisconsin

DeHART, Roy Lynch, M.D., M.P.H.
Director
The Vanderbilt Center for Occupational and Environmental Medicine
Professor of Medicine
Nashville, Tennessee

GIBSON, Michael H.
President
Paper, Allied-Industrial, Chemical, and Energy Union
Local 5-4200
Miamisburg, Ohio

GRIFFON, Mark A.
President
Creative Pollution Solutions, Inc.
Salem, New Hampshire

MELIUS, James Malcom, M.D., Ph.D.
Director
New York State Laborers' Health and Safety Trust Fund
Albany, New York

MUNN, Wanda I.
Senior Nuclear Engineer (Retired)
Richland, Washington

PRESLEY, Robert W.
Special Projects Engineer
BWXT Y12 National Security Complex
Clinton, Tennessee

ROESSLER, Genevieve S., Ph.D.
Professor Emeritus
University of Florida
Elysian, Minnesota

STAFF/VENDORS

LASHAWN SHIELDS, Committee Management Specialist, NIOSH
STEVEN RAY GREEN, Certified Merit Court Reporter

OTHER PARTICIPANTS
(in order of appearance)

MR. JOE FITZGERALD, SC&A

DR. JIM NETON, NIOSH

MR. LARRY ELLIOTT, NIOSH

MS. KATHY BEHLING, SC&A

DR. HANS BEHLING, SC&A

PUBLIC COMMENT
(in order of appearance)

MR. LARRY JONES
MS. BARBARA WALTON
MS. KATHY BATES
MS. JANET MICHELE
MS. JONELL BARTON
MS. DORIS HENLINE
MS. R.L. AYERS
MR. GEORGE ELDRIDGE
MR. GARY FOSTER
MR. FORREST JOHNSON
MR. KENNY COOK
MS. ELIZA ROBINSON
MR. BOB WARREN
MS. BEULAH LINDSEY
MR. ALVIN LINDSEY
MR. GLENN BELL
MR. RICHARD MILLER

P R O C E E D I N G S

(2:15 p.m.)

WELCOME AND OPENING COMMENTS
DR. PAUL ZIEMER, CHAIR

DR. ZIEMER: Good afternoon, everyone. This is the official opening of the 35th meeting of the Advisory Board on Radiation and Worker Health. We're pleased to be back here in Oak Ridge, Tennessee for this meeting.

It's perhaps of note that this Board began its series of meetings in January of '02, so we have just completed four years of meetings and are starting year five. And another significant thing about that is that most of the members of this Board have been members of the group since the beginning. I think most of those appointments were actually made late in the fall of 2001, with the Board convening its first meeting in January '02.

Actually a couple of members of this Board will be rotating off -- I don't know if rotating is the right word; I guess retiring. Rotating implies they might be coming back. But -- and we -- we will recognize them later in the

meeting, but we do have with us today three individuals who have been recently named by the White House as new appointees to this Board, and they are -- they will be seated at the table at our next meeting in April. Today they are still in the capacity of observers and learners and I guess members of the public, as well. Those individuals are Brad Clawson from Idaho National Laboratory -- here's Brad; Jim Lockey, Dr. Lockey's at the University of Cincinnati Medical Center; and John Poston, Professor Poston from Texas A&M University. So we're pleased to welcome those three individuals to the Board as they will be beginning their terms and -- well, one is never sure how long a term is. As I've indicated, it's been at least four years for those already here, but we welcome their participation. There also is another individual who has a significant position in the overall program, and that is a replacement for Dick Toohey. I'm going to ask Lew -- Lew, if you would introduce the new Project Director for ORAU.

DR. WADE: Yes. We do have a new Project Director for ORAU -- the principal ORAU

contract to NIOSH, and that's Kate Kimpan -- Kate is standing in the back of the room. We welcome Kate to our activities. We thank Dr. Toohey for his contribution, so Kate, we'll be calling upon you from time to time.

DR. ZIEMER: Now a few housekeeping items. Many of you were here at the earlier session of the subcommittee this morning, but in case you didn't get this announcement there is a registration book or a -- an attendance book out in the corridor. And if you haven't already done so, we'd like you to register your attendance with us here for this meeting. Also, individuals who would like to address the assembly as part of the public comment period, there is a book out there, as well, for you to sign up. That public comment period will be late this afternoon after we finish the regular scheduled business of the Board. So if -- if you're in that category and have not already done so, please sign that book, as well. Also I believe we have some NIOSH staff people in the hall to assist people who have claim issues -- is that correct? We do have some folks there. And if you have some specific

questions about an individual claim, the Board in the public meetings does not deal with the claim -- individual claims, but there are NIOSH staff people here that can assist you with questions that you may have.

Also on the table near the rear here you'll see our many documents and copies of today's agenda, so please avail yourselves of those as you see fit.

We have -- on our agenda, Board members, you'll notice the approval of the minutes. Without objection the Chair is going to defer the approval of the minutes until later in the meeting, primarily since you do not yet have the minutes. But they will be distributed to you I guess later this afternoon so that you have some -- some bedtime reading for the next couple of days, and we will take action on those minutes then probably on Thursday afternoon.

Now the important topic for us to deal with here at the beginning of our session today is the Y-12 site profile, particularly as it pertains to the SEC petition for the Y-12 petitioners. And we had a discussion this

morning from the working group on the Y-12 site profile matrix. This afternoon we're going to hear in a more formal way from a representative of the Board's contractor, from SC&A, and that is Joe Fitzgerald. And Joe is going to give us an overview of the issue resolutions for the Y-12 site profile.

So Joe, we welcome you back to the mike.

DR. WADE: I might make some --

DR. ZIEMER: Oh, yes --

DR. WADE: -- opening comments on the --

DR. ZIEMER: -- and before Joe presents, we do need to again clarify conflict of interest issues --

DR. WADE: I'd like to --

DR. ZIEMER: -- on Y-12.

DR. WADE: Thank you, Paul. I'd like to speak to two things, conflict of interest issues, and then I'd like to put sort of the Y-12 discussions in sort of a context for you, as well, so that if you'd bear with me...

First of all, on the conflict of interest -- you know, if Paul and I remember between the two of, at the start of each discussion that relates to a particular site, I think we should

remind everyone of conflicts that might exist on the Board. It's not surprising that a Board that is put together to deal with these diverse issues would come with some conflicts. As people have experience that makes them valuable members of the Board, it also presents potential conflicts.

Y-12 SITE PROFILE – DISCUSSION/PLAN OF ACTION
DR. PAUL ZIEMER, CHAIR

We're now going to talk about the Y-12 site profile. We have conflicted Board members with regard to that topic. They are Roy DeHart, Robert Presley, Paul Ziemer and Mark Griffon -- Mark only when there are issues pertaining directly to the Atomic Trades and Labor Council.

I'd remind you that our policy with regard to conflict of interest on site profiles is that when discussing a site profile Board members who have a conflict may participate in the discussion at the table, but cannot make motions or vote on motions. So again, everyone can remain at the table as we discuss the site profile. Should there be -- should we approach a motion, a Board member who's conflicted cannot make such a motion and a Board member

cannot vote -- those conflicted. So hopefully that's clear, and we'll -- you'll hear this little discourse from me fairly often.

Let me try and clarify the Y-12 issue for you. We're going to talk about the review of the Y-12 site profile. That's been an activity that's been underway for some time. The Board selected Y-12 as one of the first profiles to be reviewed by its contractor, SC&A, and we're aggressively involved in that review, the review of the site profile.

I probably don't have to remind anyone in this room that at an early July meeting this Board approved an SEC petition for Y-12. That particular petition related to all employees that worked in uranium enrichment or other radiological activities from 3/43 to 12/47. The Secretary of HHS has subsequently acted positively on the Board's recommendation. There is still an SEC petition pending. That is the petition that deals with all steamfitters, pipe-fitters, plumbers that worked from 10/44 to 12/57. Obviously a subclass of that has been dealt with by the approved petition, but there is still a class

of workers that have not been dealt with in terms of the SEC process. It is our intention to try and resolve the outstanding technical issues regarding the site profile and to bring that portion of the SEC that has not been acted upon to a vote at the Board meeting scheduled for the end of April.

So again, we're here now to talk about the site profile issues related to Y-12. It has a certain urgency because we have a pending SEC petition -- at least a portion of one -- that we would like to bring to a timely resolution. So I think that brings you up to speed on where we are, and Joe, sorry to take some of your time.

MR. FITZGERALD: No -- thank you, Lew. I think that gives a good background. Again, we're starting a process at the issue resolution stage. I think those who were at the Knoxville meeting may recall we did brief out on the site profile itself, but now we're trying to resolve the remaining issues that we need to provide guidance and technical support to the Board in terms of making a decision on SECs.

I'm getting a flag here to raise this higher.

Is that better? Okay.
Ask the Board's indulgence, I'm going to go through those sections we've already covered before lunch relatively quickly, not to dwell on the status of the matrix again. I'm sure you've gotten that. Right?
Certainly for the benefit of the audience, this is a chronology of the interactions that have -- has taken place between the Board, SC&A and NIOSH over the past three or four months -- frankly since the report was submitted -- and again trying to narrow issues, differences, and trying to come up with resolutions. We've been meeting or conferencing almost on a monthly basis, with quite a bit of analysis and data-gathering in between. So it's been a -- I think a pretty robust process and I think the workgroup has been certainly highly responsible for keeping that thing moving on schedule.
I'm not going to dwell on this. This is what we covered in the working group (sic) before lunch. I kind of framed them up a little differently, but essentially we've gone through the status on the matrix. I'll just skip through that, if you don't mind -- unless

there's some questions or issues on what I had put on those two pages.
This is another -- what I did was highlighted the -- the key issues I thought were of importance, either from the SEC standpoint or from the site profile standpoint. I think clearly the first one is the one we talked about quite at length this morning, which is the data validity or, as we're characterizing, reliability. And again, the importance of this is to assure that in fact the information, the data that's being used for dose reconstruction, can be in fact validated as representative of the original data. In this case we spent I think some time talking about the various sources -- I call them compensatory, because essentially if -- I'm not sure -- and Mark, correct me -- I'm not sure we've given up the ghost, nor has NIOSH, on perhaps some data being available in the files, whether in Atlanta or someplace else, that might give us a better handle on this data. But assuming -- I think the guidance was that was proven to be not particularly fruitful or practical. Assuming that does not work, then certainly

from a compensatory standpoint these other sources of documentation can serve to provide some measure of consistency, some test of consistency. And I think that's what we were certainly covering this morning.

And the importance from the SEC standpoint is pretty much what we're stating there, which is the reliability's essential -- a cornerstone in terms of dose reconstruction.

A second issue, which again we touched on -- I kind of phrased it a little differently -- is -- certainly in our review of the site profile we were concerned that the -- the scope of review for the site didn't narrowly or perhaps inappropriately consider Y-12 to be a uranium plant. Certainly a lot of DOE sites have a pretty varied history -- diverse history, and in this particular case certainly we were cognizant of -- and those who have worked at Y-12 certainly are aware of -- the fact that there's other activities going on at the plant during the history. And certainly on the Oak Ridge National Lab side, the X-10 side, there were a number of things going on with the Cyclotron and Calutron in terms of generating

different radioisotopes, handling plutonium. So in other words, a number of different sources of radiation other than uranium. And what we are trying to do there is to focus attention on how that may have contributed to the overall source term for the plant. And certainly the implications are pretty important because the -- in this case, since we're talking the SEC context, the class of workers we're talking about were workers that in fact may have traveled throughout the plant, had access to a number of different areas. And we've interviewed a number of workers and a lot of these plant-wide workers, monitored or unmonitored, pretty much had free access to different areas of the plant. So clearly these other sources, these non-uranium sources, certainly would play into this.

I think we talked about the fact that -- you know, we were certainly concerned that there wasn't any real data -- a database that would help us in that regard, and I think NIOSH certainly has identified and is making available this week a number of pages -- 6,000 pages, I understand -- of bioassay data coming

from this side of -- the X-10 side of the plant, which certainly can inform this analysis, provides an avenue hopefully where one can do some consideration of what coworker model might be appropriate. It -- I don't think it's a panacea, I guess that's the first thing I was going to say. It's not a panacea. I think I made the -- make it clear in the statement that I think it gets you a lot further than where we were before, assuming that the data itself is reliable -- that old word; you know, it's valid, it's a robust database and one that could be applied.

As I was clarifying earlier, however, there's other bins of exposure to these other nuclides, and certainly we're concerned about uranium 233 that might have been handled -- or produced elsewhere in the plant. We're concerned about recycled uranium that certainly we have evidence was handled at the plant. And certainly there's other sources of these so-called other radioactive sources that we want to make sure are addressed. And again, the significance for a SEC consideration is that would enable us to be sure that all the sources

were accounted for for this class of worker that had free rein in the plant, which includes the pipe-fitters and the -- you know, the plumbers and what-have-you that we've been looking at.

We covered this. I'm not going to spend too much time on this, but again, I think the job functions information that -- that NIOSH has been providing has been immensely helpful to begin to get a handle on how the distri-- the dose distribution is by virtue of different job titles and categories. We're finding it difficult to accept that the population that's being considered is a homogenous population, that everybody's in this administrative area, that they're all sort of doing the same work and the exposure potential's roughly the same. Our concern is that certain job categories -- we think the exposure potential's actually higher than the average. It's sort of a broad mean and whether it's a 50th percentile or a 95th percentile, we think that needs to be examined or continue to be examined. We have had I think pretty good discussions in the working group on this notion of where -- where

the data -- where the data itself is taking us. And I think that's been probably the most useful thing is to actually look at the data and determine whether or not the confidence level is such that the 50th percentile is appropriate or not, or would you want to be more conservative -- would you want to perhaps carve out certain job categories and handle them separate from the body of the workforce. That's certainly another possibility, if that's possible.

And I think -- we're moving forward. I think it was mentioned before lunch if we can get information on departments and other means of sorting this out, I think we're going to be in better shape.

You notice I don't talk about as much a SEC significance. I think this is a case of just trying to come up with the level of conservatism appropriate to dose reconstruction. So this may not be something that will be mainstream for the deliberations coming up, but certainly it's very important from the dose reconstruction standpoint.

I want to move to something we didn't -- we

touched on but didn't spend very much time on, which are some of the actions that certainly SC&A came out of the workgroup meeting in the -- on the 5th of January on, and essentially three items.

The first item was to go back and again review some of the factors that were used in the Table 5-2 -- and also I guess 5-2, 3, 4, 5, 6, 7 and 8 -- that deal with the parameters on recycled uranium. I'm talking about that in a minute.

The second item was the 147 dose records which were used in the regressive analysis. It was a analysis done -- it was a statistical analysis. And I was just talking to this gentleman before -- before we started again, and the issue was, you know, if you don't have the records, how do you in fact fill in the gaps; how do you actually determine, you know, what -- what somebody might have gotten. And the process is you use a model where you look at coworker doses. You look at what -- if you didn't have a dose record, were there people that were doing the same kind of work in the same time period that in fact did have a record and could that apply to you as a worker. And so this

process of looking at the 147 monitored workers gives us a better handle on that particular model, whether in fact that model was representative. And it allows us to decide is that the right approach, the looking backward into the '50s where the data's pretty sparse using data and information from the '60s. Can you do that, is it sound, does the distribution work, and does it really apply to the whole worker population or not. Can you be that general.

So we're looking at it from the standpoint does it -- does it work. Can you in fact use it, can you apply it, does the data in the early '60s -- is that representative enough of the kind of work that was done in the '50s so you could take that data and apply it to the '50s.

DR. ZIEMER: Joe, let me --

MR. FITZGERALD: Yeah.

DR. ZIEMER: -- let me interrupt you a moment here while you're on that point. I want to make sure that the Board members are aware that the comments on January 19th were distributed by e-mail to the Board members, so you should have those.

MR. FITZGERALD: Right.
DR. ZIEMER: And I'm -- I'm pausing to determine whether or not those are available to the public, those comments. I think they can be made public if they haven't already been. Do you know if they have been?
MR. FITZGERALD: I certainly have copies and would be pleased to put them out. I --
DR. ZIEMER: We can make them available --
MR. FITZGERALD: Okay.
DR. ZIEMER: -- I just wanted to make sure that we do, so --
DR. WADE: I don't think so.
DR. ZIEMER: Okay.
DR. WADE: We'll put them on the table.
MR. FITZGERALD: And again I would point out that we were -- we finished our analysis and provided these to NIOSH on Thursday, so clearly there hasn't been enough time to really react to them. Again, we wanted to get them to NIOSH as soon as possible, but not in enough time for this meeting.
The third item was the OTIB-51, mentioned before lunch again, which was dealing with how the NTA film in the early years -- how it

responded to neutrons and how one comes up with correction factors so you in fact can come up with the dose estimates based on that and angular dependence as well. Those comments were provided on the 19th, and you have a copy of that set of comments.

I'm not going to -- you -- you have the comments, so this is just a summary. Again, this is a recommendation -- actually I think was made as early as some of the past three reviews that Hans and Kathy worked on, so this is not a new issue but certainly an issue that has come up in this site profile. And again, having raised this issue on other site profiles, I think this is a very fundamental step forward to actually have this OTIB contain this information and provide these factors.

The issues that we have, though, get down to -- the approach is sound, but we'd like to see this analysis run for energies beyond 700 keV. I think 700 keV certainly is one benchmark, but we think 800 and 900 offer other benchmarks, might be appropriate to have additional curves provided on that.

Again, a sort of a -- I guess I would consider

this sort of a loose-end issue. We noticed the chem operators were very appropriately considered in the analysis but not cited in method two, which was another part of the analysis. I'm not sure this was an oversight or something that was intentional, but certainly would like to find out about that. And again, the OTIB did not necessarily address some of the issues that we had relative to neutron flux below the NTA threshold, that in fact in some parts of the plant we're concerned about whether those thermal neutrons -- energies that certainly ought to be addressed and considered and that was not necessarily addressed in the scope. Again, the site-wide worker who might have been exposed to the (unintelligible) neutron sources is another consideration that's specific to Y-12, actually.

Again, I think these were more or less very specific technical comments. I think generally, though, we're supportive of the approach that was provided in the OTIB. Again, you have those specific comments that were transmitted last week.

The second item was to revisit the tables in the Technical Basis Document for Y-12 that dealt with the recycled uranium. Our concern was really one of could you in fact come up with the facility-specific, time-specific, campaign-specific ratios that might provide a very representative way of calculating some of these ratios and conversion factors. And most of our comments really revolve around whether one can be very generic or is it possible, given the data you have, that you could actually be a little bit more specific. And -- and if somebody were involved in a particular operation at Y-12, whether the ratio for recycled uranium might be different for that individual versus the general population. So again, we're not sure about whether the data would support that, but we're just saying that certainly this question of, you know, can you be that generic over that length of time over this big a plant, or is there any way you can narrow that down to be a bit more tailored through operations and particular processes. It's an open question but we thought, again, it would be important to raise that.

And again, it's -- those are the two action items.

This is a wrap-up that we've already covered so I certainly don't want to put you through that. The only thing I would say, and I would -- again, it's this last item -- whether badging was based on maximum exposed workers. I mentioned earlier that we're beginning to go through the expanded CER database through '65. And again, we haven't seen the 147 dose records, but we -- we still think that the numbers -- not necessarily the very high numbers, above 1,000 millirem a year -- I mean, I'm -- 1,000 millirem per quarter, but some of the lower numbers just below that seem to suggest that, you know, we're dealing with some group of -- group of workers that could arguably not necessarily be maximally exposed in the early period. And the juncture point that we particularly focused on was the pre-criticality/post-criticality, trying to see what the difference in the numbers would suggest, and we see some appreciable differences in those numbers.

We don't think we settled on any conclusions.

We just are continually looking at this data and seeing what the data tells us. But certainly it raises some questions as to whether there might be some -- some worker group, sub-group, that might not be in fact the maximally exposed that were not badged, or in fact there was some cohort badging in certain activities.

And this is not -- this is sort of a similar issue we went through and was mentioned by Mark this morning relative to this notion of bioassay -- I guess that's (unintelligible) interviewed Mr. Preston -- Presley, and the issue was, you know, can you in fact assure yourself that this is not a department-wide sampling, random sampling on a department-wide basis. Again, I think we're not convinced in some of these -- these areas.

And we covered this and this is sort of a vantage -- from our vantage point, this is very consistent with I think what was mentioned today in terms of where we go from here.

Again, I think we're -- our focus is pretty much going to be on the reliability, robustness and applicability of the 6,000 pages, the X-10

data. We're certainly going to be planning on plowing into that along with NIOSH and see what that data would tell us on this question of other nuclides; to look at the issue of in fact whether U-233, radon, some of these other nuclides elsewhere in the plant would be in fact significant to be able to answer that question; to in fact corroborate the reliability of the electronic database which was mentioned I think in detail a little earlier. And this issue of coworker models I think, again, we need to be very clear whether in fact the basis for those coworker models and the maximally exposed individuals can be established.

Now everything else in our view I think is very clearly appropriate for a site profile. I think Dr. Ziemer mentioned that we had over 100 findings in this review of the site profile, very detailed review. But a lot of these were technical issues, factual accuracy issues, ones that probably and most likely will not bear on the SEC determination, but nonetheless we're not going to lose them. We're going to be working on those, as well. But those will

certainly be a second priority compared with the others.

I think that's it. Is there any further questions? That's probably fairly redundant, but nonetheless that's what we're looking at.

DR. ZIEMER: Thank you, Joe, for that overview. Let me open the floor now, Board members. Any questions for Joe Fitzgerald or -- or for NIOSH in that regard? And Jim, I know that you probably covered a lot of -- most of your points this morning. Do you have any additional comments -- Jim Neton from NIOSH -- in response to what Joe has presented?

DR. NETON: No, I think the status update that we did prior to lunch covers the waterfront of activities that we're engaging at this time. I have nothing additional to add.

MR. GRIFFON: Can I -- Jim --

DR. ZIEMER: Mark?

MR. GRIFFON: I just wanted to ask -- I meant to ask during the subcommittee meeting, but you mentioned that that disk was available and you mentioned --

DR. NETON: Yes.

MR. GRIFFON: -- it possibly being available to

SC&A and the Board.

DR. NETON: Right.

MR. GRIFFON: Have you...

DR. NETON: I need to get with --

MR. GRIFFON: -- come up with the answer to that before the end of the week or...

DR. NETON: Yeah, I'll -- I'll have an answer maybe by the end of today if I can get together with the appropriate folks at a break and see what the issues may be about releasing that disk.

DR. ZIEMER: Other comments or questions?

(No responses)

Okay. And we will --

UNIDENTIFIED: Paul --

DR. ZIEMER: -- make sure that the document is available to the public here before long.

Dr. Anderson.

DR. ANDERSON: Yeah, I -- I guess my question is just exactly what are you intending to do with the 6,000 records? I mean are some of them going to be abstracted? You know, what is going to happen and in a -- in a timely fashion?

DR. NETON: Well, not having seen the 6,000

records, I don't know.

DR. ANDERSON: Well, I mean they may not be even legible, you know. I --

DR. NETON: But -- but the concept was that these records include data for radionuclides other than uranium. I think more specifically plutonium and maybe some polonium. And so if we can identify who -- who was monitored, you know, for those nuclides and -- and have enough data to make a robust coworker matrix that could be used to apply to these workers at processes such as the Calutron and the Cyclotron and other operations that involve non-uranium activities, that would be our intent.

There's another piece of data in addition to these 6,000 records that are the Department 4000 records at the -- from the X-10 facility. Those are people who worked on operations at Y-12. They are also available and being looked at. So between those two datasets we hope to be able to put together some quality analyses that would allow us to do dose reconstructions for non-uranium radionuclides at Y-12.

DR. ANDERSON: And is the plan to have that by

the March teleconference or --

DR. NETON: The plan is to determine --

DR. ANDERSON: -- are we talking April or -- you know.

DR. NETON: Well, the plan is to determine --

DR. ANDERSON: I won't be here, but I just -- I'm querying on behalf of those that...

DR. NETON: Well, right now ORAU is reviewing the data and we need to make a determination how long it's going to take to get that put in place, and we'll have to make a decision at that time if -- if the data can or cannot be used in a timely manner and move from there.

DR. ZIEMER: Thank you. Other comments, questions?

(No responses)

Board members, I want to remind you that we have on our schedule for March 14 -- and this may be a good time to double-check this and ask Lew to confirm -- we had scheduled a Board conference call for March 14th. And one of the items of course for that conference call then would be to get an update on the status of these issues for the Y-12 SEC and these issues that come out of the site profile, and

determine whether we are on track because we have schedule also for April 25th through 27th a full Board meeting at which, as Dr. Wade indicated this morning, it would be our intent to be ready to have a vote on the SEC petition from Y-12, if these issues are indeed resolved by that time. And we perhaps will have a better feel for that at the time of the March conference call, but we need to make sure that folks have that on their calendars and that we can try to hold to that schedule. Lew?

DR. WADE: And I would also like us to spend some time just looking at -- for some detailed planning in terms of interactions between NIOSH and SC&A with the Board present, working group meetings. We still have work left to do, obviously, on these open issues. And I don't think it would be appropriate for us to end this session without having a detailed plan of action in place. So while all the principals are here and these issues are fresh in our mind, I think we should lay out a strategy that will take us to the point that I assume the Board wants to be, and that is when you vote an SEC petition at the end of April that you have

the issues resolved in your mind that you need to have resolved. So I think we need to spend some time, Mr. Chairman, doing that.

DR. ZIEMER: Mr. Presley.

MR. PRESLEY: One of the issues I have is the SEC petition is only for pipe-fitters. Is that correct?

DR. WADE: The language is "steamfitters, pipe-fitters, plumbers that worked..." -- is that correct? That's the language I have in front of me.

MR. PRESLEY: Okay. That probably --

DR. ZIEMER: Is that exclus-- does that exclude some categories? Let me -- go ahead and ask your question, I'm...

MR. PRESLEY: Well, that probably only encompasses somewhere in the neighborhood of about five percent of the people that worked at Y-12 at that time. I have a real problem with this.

DR. ZIEMER: Mr. Elliott from NIOSH perhaps can address that.

MR. ELLIOTT: The petition definition that you have before you is the one that the petitioner put forward to us. And as you've seen in our

evaluations of these petitions, we tend to expand -- in our understanding of what we can do or what we can't do -- and we include in our definition that's provided in our evaluation report to you a recommended definition that would cover additional employees or workers at the site who should be considered in that class. So I wouldn't use this definition as couched in this current petition as the limiting definition. It's the starting point.

MR. PRESLEY: Okay. Because, you know, we've got the -- about that time was when Y-12 ramped up from a -- let's say a chemical operation into a production operation, and there are a tremendous amount of people that worked in other jobs that worked with uranium issues. You left out your machinists --

MR. ELLIOTT: Sure, yeah.

MR. PRESLEY: -- you know, you left out all of your chemical workers, so there's a tremendous amount of people that, if we're going to discuss another SEC petition, I think ought to be included in this thing one way or the other.

MR. ELLIOTT: Well, that's why we think it's so important to resolve these questions that have

been raised about the site profile, because it goes directly to the first prong of the two-pronged test for considering to add a class: Can we reconstruct dose sufficiently for all those in that class. And so that's why we feel very strongly that we need to have these questions that have been raised about the site profile resolved to satisfaction.

DR. ZIEMER: While -- while we're on that topic, I would like to ask Mr. Presley or others who might know, how well do we know the job categories of individuals working at Y-12 during that time period? Are these in -- are these job categories well established in the work records? I don't if any of the ORAU people who have examined those records, or Mr. Presley, can answer that for us.

DR. WADE: Just for the record, this is in the context of the site profile evaluation that we're having this discussion.

MR. PRESLEY: I know, as a person that's going back through these records, there's a tremendous amount of records that I've come across in the last four or five years that, yes, you know, does describe that. You know,

Jim's got some problems with this list that he's got. It's what, 30 -- 30 or 60 pages long where we need to sit down and probably do some work on the -- on categorizing the different job categories. But I think it's very much possible to go back through and say, you know, what these people did and where they worked and put them in a category of jobs. I really do. I think the information's there.

DR. ZIEMER: Okay. Mr. (sic) Neton?

DR. NETON: Yeah, I think we do have a lot of job title type information on these exposure records. The working group is aware that we have a title for almost every exposure measurement that's out there. The problem, as Bob alluded to, is that there wasn't a standardized title so you -- you have to make some judicious choices in collapsing these data down to meaningful categories. And ORAU has done that, the working group has that information. I think they collapsed hundreds of titles down to maybe 40 relevant job types, and they seem to make sense to us -- you know, these categories. And it also seems to make sense to us that the type of workers that were

monitored were the more highly exposed, but we're getting into more technical details here than we probably need to.

DR. ZIEMER: Thank you. Mark?

MR. GRIFFON: My sense of some of the -- you know, what -- what did people do in different jobs is that -- we have job title information. I think what we haven't done -- you know, Bob said -- and we have job titles and where they worked. I don't know that we have that cross-link of where they worked. A machinist could have worked in several different areas in the plant with different potential exposures, so I don't know that we have that. We also have machinists that worked in different departments, which could, in my -- that's why I was asking about the department listing. It could denote different sorts of exposures, maybe that could still be covered in a blanket distribution type model. I'm not saying that they --

DR. NETON: Right.

MR. GRIFFON: -- they couldn't, but we haven't really got that level of detail, I don't think.

DR. NETON: That's correct. I think we need to

-- we're getting a little bit near the proof of principle that we can collapse these job categories and we know that there were some non-uranium operations that were there, and making of the decision as to who were potentially exposed to these non-uranium operations, such as Cyclotron and Calutron, is -- is going to be difficult. Of course if we can't, you know, bin these people into the right categories -- for instance, possibly machinists or maintenance folks -- then we would, as usual, make assumptions that, you know, they could have been exposed if we can't nail down, you know, their potential exposure. So I think -- I think we can do this, it's just now a matter of demonstrating how we're going to go about it. And you've seen a lot of that in the matrix -- comment resolution; how is NIOSH going to use the 95th percentile; which categories of workers are going to go in there, those sort of issues. So we're really getting down to some more of the nuts and bolts issues of how we're going to do this, I think.

DR. WADE: I do think it's important, though, that the Board sort of begin to frame those

nuts and bolts issues, as you categorize them, now because this will be the Board's last chance really to instruct the principles in terms of the degree of specificity you're looking for on these issues, so let's take the time and do that now if Board members have questions in their minds.

DR. ZIEMER: Mark.

MR. GRIFFON: I think one thing that -- that we've been discussing on the sidelines or in the workgroup is last -- and I forgot to mention this in the earlier presentation, but last workgroup we had we asked NIOSH to present some example cases of some dose reconstructions. And that sort of gets down to okay, you've got these models; now how are they applied to different situations. They did provide some example cases. I think that now we're learning -- what -- what we didn't have was a lot of the pieces yet, so we were -- it was a little ahead of ourselves. And now we've got more data about these other radionuclide issues and other things, and I think the next step is after we get these pieces together then we can say okay, you know, for these types of

situations how are you going to do a dose reconstruction. We'll have a better frame on a -- a better picture of the potential exposures that we need to address. So we do -- you know, I think we still want that that piece -- or at least a few more of those examples, how many we -- we yet to define, but we can't really do it today, I don't think, because we haven't seen these 6,000 pages and some other critical pieces, obviously.

DR. WADE: I think we --

DR. ZIEMER: Jim --

DR. WADE: -- can lay out the time line, though, and --

DR. ZIEMER: Right.

MR. GRIFFON: Right, right.

DR. WADE: -- the steps that need to happen for this to be fulfilled.

DR. ZIEMER: Jim Neton.

DR. NETON: I totally agree with Mark. I would like to point out a couple of things as -- you know, I think the Board and the working group in particular are well aware we have literally hundreds of thousands-plus records for uranium urinalyses at this facility, and tens and tens

of thousands of film badge results and TLDs. So you know, we still have to establish the credibility or what we're calling now the reliability of those datasets. That's key. But then the remaining issues of these what I call ancillary nuclide exposures is not a tremendously large percentage of the workforce, in my mind. I mean most in fact of the workers at Y-12 were working with uranium. There are these sort of -- other nuclides that are out there. We do need to nail those. But I don't want there to be -- you know, people to be misled thinking this is a huge issue with, you know, a major percentage of the workforce. These are somewhat, you know, miscellaneous exposures. I don't want to diminish the type of exposures, but they were not normal, routine operations, for the most part.

Oh, one other things is I was reminded just a few minutes ago to point out not to focus the -- on what this 6,000-page set of information is. It's really 6,000 pages of bioassay data, some with a lot of data, some with maybe one or two. So it's not 6,000 full pages of records. I mean -- you know, for every person who was

exposed, there is a page possibly. But there may be redundant pages and such, so I don't want people's expectations to be too high. I mean they're certainly worthwhile to look at and very good new additional pieces of information, but this is not 6,000 times the number of lines on a page of bioassay data. That's not what we have here.

MR. GRIFFON: Right. Jim, I -- I did want to point -- you mentioned thousands of -- of urinalysis and other records. I think -- but you also -- we -- we had asked this question earlier, and just for the sake of the folks here, I mean -- you did do at least a cursory analysis of the claimants and determined that about ten to 12 percent have urinalysis recor-- they would rely on the records to do the dose reconstruction, as opposed to the other 88 percent would end up relying, to some extent, at least, on the coworker models. Right? So that's why we're --

DR. NETON: That's correct. Yeah, prior to 1961, and the further back you go, the more sparse the data are, but you're right, there are fewer and fewer samples and we would have

to use coworker data, which is why the issue of the -- what percentile we're using for the coworker data is important. You know, whether we use the 95th percentile or the 50th. I would suggest, though, that that is a matter of detail to be worked out for a dose reconstruction process, as opposed to something that would prevent us from doing a dose reconstruction at all. But that's something we can take up during the working group.

DR. ZIEMER: Okay. Other comments?

(No responses)

Now the working group that had been involved with Y-12 was the one we identified earlier. We have to be a little careful on working groups, that their tasks do not stretch out for years and years and they no longer become ad hoc groups but become institutionalized as subcommittees. But is there any reason why we shouldn't ask the current working group to continue on this particular site profile and SEC? That is Mark, Mike, Wanda and Robert. Are the four of you willing to continue on this task?

MS. MUNN: Yes.

DR. WADE: And again, the task only relates to the site profile.

DR. ZIEMER: That's correct.

MS. MUNN: Yes.

DR. ZIEMER: And working with our contractor and with NIOSH in the resolution of the identified issues.

Then we will ask the working group to do that in preparation for both our conference call and the next meeting.

Now I'm not sure it would be useful for us to use our time here to work out a schedule with the working group, NIOSH and SC&A, but perhaps Mark, you can get together with the principals and find suitable times for those meetings to occur. Lew, do you need that information yet today or --

DR. WADE: No, I don't.

DR. ZIEMER: Okay.

(Whereupon, Dr. James Melius joins the members at the table.)

DR. WADE: I think, again, it's been sort of our method of operation that when the working group meets we would -- we could either have the meetings as public meetings or not, as is

the wish of the working group. Regardless of that, we would want to make them available to representatives of the petitioner and those people who have a particular interest in what's going on here. So I think the Board needs to decide whether it wants this particular suite of working group meetings to be open to the public or not.

DR. ZIEMER: Robert?

MR. PRESLEY: Question. Do we want to look at this site profile from 1944 to 1957, or do we want to look at the site profile from 1943 until 19-- or 2006? Or some time up to that? 1957, to me, there are years that should be looked at beyond that.

DR. ZIEMER: The petition as it currently stands is from the '44 to '57 period.

MR. PRESLEY: Right.

DR. ZIEMER: But --

DR. WADE: The site profile.

DR. ZIEMER: Well, the petition itself is from that period. Yes, Wanda.

MS. MUNN: The site profile most certainly should, in my view, run from initial operations to the current date. With respect to the

immediate work that we're doing, I think we've all agreed and we've said here earlier we will focus, as a priority issue, on questions that affect that period of time covered by the SEC. But the site profile that we're working on as a working group should cover the entire period of operation.

DR. WADE: Again, I think it's important to point out that the working group will be looking at the site profile. As Wanda has mentioned, it's quite possible they'll focus more in one area than another for -- for reasons of an SEC petition. But this is not an SEC petition activity that they're involved in. It's a site profile review. If not, then we would have to reconstitute the working group.

DR. ZIEMER: Then we'll proceed on that basis. Any other comments or questions on this item?

(No responses)

Okay. Thank you very much. We are a little bit ahead of schedule, but we can proceed with the agenda as it's provided there and -- I thought I saw Dr. Melius come in -- where is he?

MR. PRESLEY: He's on the end.

DR. MELIUS: I am here.

DR. ZIEMER: Oh, there he is. Yeah, he's hiding.

DR. MELIUS: I am going to need actually a short break 'cause I have my presentation which I need to get over to that computer.

DR. ZIEMER: Okay.

DR. MELIUS: And so however you want to handle it -- Jim Neton's or somebody or -- somebody's computer.

DR. ZIEMER: Okay. We'll just -- we'll just pause for a minute. We won't take a full break.

(Pause for equipment set-up.)

PROCEDURES FOR BOARD EVALUATION OF SEC PETITIONS DISCUSSION – PART I
DR. JAMES MELIUS, ABRWH

DR. ZIEMER: At our January 9th conference call we had a report from the working group on SEC petition procedures. Actually it was called a working group on Special Exposure Cohort petition review. That workgroup was chaired by Dr. Melius. At that time there was a draft of a document presented to the Board, and subsequently Dr. Melius collected comments from the Board on that draft and now has a revised version.

The plan is for him to present to the Board and to the public, really, the current draft on -- of the petition review process that the Board is looking at, and then to take action on that later in the meeting -- namely tomorrow. That will allow the opportunity for public comment on that document, if anyone so desires. So Dr. Melius, if you'll proceed and give us an overview of the contents of the proposed procedure.

DR. MELIUS: Okay. The -- I've listed the members of the workgroup up there. They share the credit and the blame, I guess, for what we've produced. It's myself, Roy DeHart, Mark and Paul. We're all members of that.

The main work of the workgroup was a meeting in Cincinnati, I believe in November. We had about a half-day meeting involving the workgroup. Several members of NIOSH staff attended that meeting also. There were some other observers there, I think -- I believe Brad, you were there as an observer, getting your orientation, so he also sat in on that meeting. And based on the meeting and discussion we had, then actually Lew produced

an outline and then I basically turned that outline into a report of the working group. We talked about it in our last phone call Board meeting, as Paul has mentioned. And then I have received some comments before and after that meeting which have been incorporated into the draft report. But I think we -- it's fair to say we still see it as a sort of a working draft report and are -- obviously welcome comments of the other Board members, as well as members of the public that would have some, you know, views to share with us on -- on this approach.

(Pause)

I think it's important in looking at this that -- this is sort -- sort of a -- I will say a simplified schematic of the steps involved in the petition process. You know, the SEC petition gets sent to NIOSH. The petition -- there's a review process for the petition itself, basically does it qualify and so forth. And after that then, once that step is -- the petition has been accepted, viewed as appropriate for follow-up, then NIOSH does an evaluation of that petition -- does it meet the

requirements for an SEC -- you know, to be a member of the cohort for that. And that NIOSH evaluation report is then transmitted to the Board and the Board reviews that NIOSH evaluation. And then -- and there's some permutations of this, so this is, again, simplifying it. But then the Board -- based on the Board's review of the NIOSH evaluation report, then the Board makes a recommendation to the Secretary on, you know, accepting or not accepting the -- that group as a class into the Special Exposure -- Exposure Cohort.

What we were focusing on in our workgroup was really the sort of steps number three and four there, the evaluation of the petition -- once it's been accepted by NIOSH, the evaluation, how NIOSH goes through the evaluation; and secondly, how does the Board review that evaluation. And our idea was to -- one, is to clarify some of those steps, try to be -- make it more efficient because in the past it's taken us several meetings's worth of deliberations and a lot of work in between meetings in order to come to some sort of conclusion on some of these petitions and our

review of the evaluations. And we needed to try to make that process more efficient and -- which was really the -- I think the main goal of our workgroup.

So what we did was, again, as I said, focus on the steps from evaluation to recommendation. We made the assumption that for the purposes of this draft of our workgroup report that we'd assume that the current regulations in relationship to the SEC qualifications were -- stayed in -- were in place. I think, you know, some of us may question those criteria and so forth, but we made a decision that at least for the purposes of this report that we'd assume and work within the current regulations rather than trying to look at alternative to those or whatever.

And that we really -- the main task we thought that we needed to do was to clarify the criteria that the Board would be using in reviewing the NIOSH SEC evaluation report. So NIOSH would be presenting it -- the evaluation report -- to us and how would the Board review that, what criteria would the Board be using in making that review. And again, the idea, if we

could clarify those criteria both in terms of -- and to some extent the procedures involved, then we thought that NIOSH would be able to improve the evaluation reports and at the same time we'd have a more efficient process that would be more efficient for the Board to review those, we could get it done quicker, and at the same time, you know, give them their just due in terms of being -- of a scientific review and so forth.

Let me just go through these. We can skip these 'cause they're -- the -- I think the key considerations we had in sort of an overview perspective of these was -- were four. One, we needed to have, as I said, timeliness. We need to be able to get this process done in a timely fashion so that the people petitioning wouldn't be waiting for too long to get a review of their petition. It would also, in terms of the amount of time and effort on the part of the Board and time of NIOSH in addressing these (sic).

Obviously we also need to be, you know, fair in terms of how much attention we pay to each petition, how much effort was put into the

evaluation and review for each petition.

DR. ZIEMER: Jim, is there a different slide?

DR. MELIUS: There's a different slide, yeah. I skipped over it and -- unless -- put -- give Jim some exercise.

DR. ZIEMER: There it is.

DR. MELIUS: There we go. Okay. Thanks, Jim. Third, it needed to be understandable or comprehensible. We needed to be able to have whatever criteria we developed, whatever steps involved to be so that the public, everyone involved, understood those -- those criteria. And finally, we also needed to have some consistency in this, that we needed to be treating everyone the same. We needed to be making -- applying the same criteria, as appropriate, to each petition that we received so that, you know, a petition from Oak Ridge would be treated the same -- by the same criteria as a petition from Savannah River or whatever other site may be involved. And actually in the workgroup we spent some time sort of fleshing those out a little bit in terms of making sure that whatever criteria we developed and so forth would address those

points and keep those points in mind.
One of the key points is that these evaluations focus on datasets, sets of exposure data that we're reviewing. They may be various kinds of biological testing, may be external radiation measurements, lots of different sources. But usually we're viewing some collection of this exposure data over some period of time. And so a lot of the time -- and those of you that have -- us, I guess I should say, those of us who have worked through these process (sic) with some of these evaluations, we really -- it's really delving into these -- very specifically into these datasets trying to understand them and so forth and do that. So the main criteria we're try to -- what we're -- how do we evaluate the credibility and the validity of each dataset that we're looking at.
So we're interested in questions like the pedigree of the data, how good is it, where does it come from, how is it generated -- that. The methodology, is that methodology up-to-date, how does it compare to maybe -- what -- we may have better methods now. You know, very often we're going back 40, 50 years. How does

the methods used then compared to how we use now. How well -- good was the quality control and so forth on it at that point in time. In many cases we're dealing with datasets -- the monitoring methods are really under development and the -- so we need to pay a lot of attention to sort of the methods used and in making sure that those are consistent with what is done now, at least to the extent that -- in terms of how we intend to use the data.

Also very important that we look at the relationship of the data that we're looking at to other sources of information, other sources of exposure data about the facility or about the people working in the facility. So to some extent we want -- now some of those other data sources may not be as comprehensive as the set we intend to use for individual dose reconstruction, but it's very important that they sort of tell us the same thing, even though they aren't as comprehensive. So again, a lot of effort into sort of evaluating -- you know, if one looks at two different sources of information or exposure, do they tell you the same thing about that, are the people that are

high in one dataset, would they -- do they show high exposures in the other dataset -- that. And we're also interested in internal consistency there. Are we seeing the same internal patterns within the dataset. You know, does the basic dataset make sense based on what we know about what was happening in that facility as well as the methods that were used there for the monitoring.

A key concept in looking at any dataset is the representativeness of the data. And by representativeness we're looking at lots of different aspects of that data. We want to know does the -- this set of exposure data, these monitoring data, do they cover all areas of the facility that we're interested in. You know, if the monitoring's only done in one building or one part of the facility and we're trying to evaluate exposures in, you know, six other parts, then that may not be a very -- very helpful to us.

We're also interested in the temporal area, what time periods are covered. Does it adequately cover all the time periods that we're interested in. We may have a petition

that covers from, you know, say '54 to '60. Well, do -- does this dataset we're looking at -- can we utilize that in a way that provides us a good -- that we can, you know, calculate the individual doses for that period of time -- that entire period of time or are there, you know, gaps in data. And oftentimes we found in the past that we're spending a lot of time trying to figure out well, for how many years can we really trust this data or be able to fairly utilize a particular dataset.

We're also interested in the types of workers that are covered and the processes within the facility. Again, this relates back both to the areas covered and the time periods. But also we know that there are certain groups of workers that move around the facility, may have different tasks. And it's important that we -- when looking at a dataset, we look at how well all the different groups of workers are addressed. Are there exposures addressed by that particular dataset so that if we're making some, you know, general -- trying to reach a general conclusion about that yes, you know, this dataset would provide exposure data on a

group of -- this group of workers, everybody that worked in plant one or two or whatever, that it really does cover everybody, all different types of work there.

And then obviously if it doesn't, then we have options in terms of how we split up the Special Exposure Cohort or reach -- can reach different conclusions. Or there may be other datasets that more adequately cover those -- those types of workers.

And then finally we also get into issues of different, you know, subsets of the data, how well can we use those. And if -- as we're starting to break down the data into sort of smaller and smaller subsets, using Wanda's favorite word now, we have to look at how robust the data is in terms of providing information -- adequate information to be able to evaluate the exposures of that and agree -- it's an abused word, but it does capture some of what we're trying to get at.

Now in talking about data, we may be talking about several different sets of data. It's usually not simple. What we want to be able to do are focus on what are the key sets of data

that are going to be critical for assessing whether or not individual dose reconstruction can be conducted. And we also want to be able to evaluate whether it's really, you know, feasible and possible to do the individual dose reconstructions in some way that would be, you know -- again, those issues of timeliness, fairness and so forth for the people involved who were exposed at that facility.

So in addition to evaluating the datasets and looking at the criteria we talked about before, we also want to actually try to look at is it going to be feasible to apply that and can it meet the criteria necessary for sufficient accuracy under this program. So feasibility takes into account, you know, how available -- is the data readily available. The next criteria there, timeliness; can the individual dose reconstructions -- can -- can access to the data and whatever manipulations or calculations are necessary to be able to utilize the dataset, can that be done in a timely fashion. If it's something that's, you know, going to take years or whatever, that may not make much sense in terms of actually being

able to do individual dose reconstructions. We also want to try to avoid -- this word -- treatment -- this is unfair or uneven treatment of different groups of workers there, so it -- what we're asking NIOSH to do is to, you know, demonstrate to us that everybody -- that all the different groups that are covered under the Special Exposure Cohort petition or the evaluation that's being done will be able to be -- you know, have their doses reconstructed in appropriately -- an appropriate manner, meeting the criteria necessary for that dose reconstruction. So again, it -- we're not asking not only just to be able to, you know, do and show that they can do dose reconstructions, but that it can be done over a -- different groups of workers within the facility so that we have some assurances that everyone will be treated appropriately.

And finally, something we started to do with some of our more recent evaluations of Special Exposure Cohort reports from NIOSH is asking NIOSH to do some sample dose reconstructions. Now these aren't taking actual individuals from within the group that's being evaluated, but

taking, you know, some representative data -- actual data from the data-- the exposure datasets that are going to be used and actually demonstrating, going through the actual dose reconstruction steps to show that it will be possible to do that for the various -- to actually do dose reconstructions for the various groups involved -- do that. And so in -- in our report we have some further discussion of this to try to sort of set out the criteria. So again, if the petition covers several thousand people, we're not saying you have to -- that NIOSH should be expected to do sample dose reconstructions on every person there, but some representative types of workers or -- and so forth. Again, not doing full -- not necessarily individuals per se, but things that would represent the types of calculations and so forth that would -- needed to be done -- done for those individ-- similar individuals or individuals with those say sort of general characteristics.

Finally, the report recommends a couple of procedural changes in the process so far. One is the area of evaluating the petition. And

again, this is the evaluation that's done after the petition has been certified. And currently NIOSH prepares for us a report that, in very general terms -- as soon as they've qualified, a petition's qualified, then they prepare what's been a very general report on what their plans are for doing the evaluation. And because this is done so early, this is a very general report. It doesn't -- the NIOSH staff hasn't really often had time to, you know, evaluate what they're going to do, look at the different datasets and so forth there, the -- so they tell very much in general what they're going to be doing, but it's not very specific to that -- nor can it be expected to be, I think, at the point in time that they're writing this evaluation plan.

But we think it may be helpful, both for NIOSH but also for the Board in reviewing the evaluation, that it -- at some, you know, midpoint when -- after NIOSH has had -- staff has had or their contractor staff has had opportunity to think about and evaluate some of the datasets and recognize what are going to be the most critical parts of that evaluation, to

either inform the Board in some way or produce maybe anoth-- another, more detailed evaluation plan that would at least be a little bit more specific about what would -- what would be involved, what datasets, what types of information were going to be critical to assessing whether or not individual dose reconstruction would be possible or whether the group would qualify for -- to be part of the Special Exposure Cohort.

So that's one recommendation, and again, this is sort of a general recommendation. We really haven't sat down -- figured out exactly what -- made a recommendation in terms of what specifically would be involved here.

The second point is I think we've discovered in doing some of these site profile reviews -- or excuse me, these SEC reviews, that we often -- because of timing issues, because of where we are or our contractor is in terms of -- the Board's contractor in terms of reviewing the site profiles -- that a review of the site profile is very, very helpful in terms of resolving a lot of the issues about the SEC evaluation; that if we've at least started or

hopefully completed a site profile review -- a review of, you know, the NIOSH site profile on a particular site, it's really very helpful in terms of addressing a lot of the same issues that will come up with -- with an SEC evaluation. So to the extent possible, we need to work out a process where either that site profile review gets done entirely before the SEC evaluation or, where that may not be possible -- and there's lots of reasons where it may not be possible, both in -- again, we don't want to delay the review of the petition, you know, for a number of years simply to do a site profile review. But where that's not possible, then we need to think about maybe parts of the site profile need to be reviewed, the parts that are going to be particularly relevant. You know, for example, if the SEC petition covers -- again, I'll use the example 1954 to '60, well, then -- you know, that part of the site profile or that particular part of the facility, that site profile review needs to be done at least for those parts that are relevant to that petition. And again, that's a sort of a general recommendation we've talked

about. We still need to I think make that more specific and I think we all recognize that it's going to be done on a case-by-case basis as we go through these 'cause we can't predict every SEC petition that's going to come in, nor can we always predict what parts of the site profile may turn out to be more or less important for the -- or the site profile review will be more or less important for an SEC evaluation. Do that.

I should also add on the procedural issues that we're also -- I think we're taking into account recognizing that the Board's contractor would also be involved in -- or could be involved in the SEC evaluation that we had -- you know, already really started the -- our con-- SC&A working on that and that we would hopefully sort of meld these two processes, that what we ask the -- our contractor to do should follow what we believe now to be the -- be an approach that's appropriate for the Board's review of the SEC petitions. And again, that should hopefully make all this a much more efficient and fair process.

So let me stop there to answer any general

questions. Again, the idea is, you know, to present this in a very general fashion and then we can talk at a later point in time about the -- some specifics related to this.

DR. ZIEMER: Thank you very much, Jim, for that excellent review of the document.

Board members, do you have any specific questions for Jim at this time, or any comments or major concerns about the document that you want to raise at this point?

Roy DeHart.

DR. DEHART: I just want to have an expanding comment, Jim. I think it's important -- the Board understands but I'm not sure that the public understands that the SEC petition really could be divided and sub-grouped so that one group would be certified and another group it would be determined that one could do a calculation of dose.

DR. MELIUS: Yeah.

DR. ZIEMER: Thank you. Other comments?

DR. MELIUS: I would just add that it's also possible that even within the SEC they could -- the groups could be sub-grouped. There may be one group for which certain types of exposure

data apply 'cause it's in one part of the facility and we'd approach that in one way, and there'd be another group that would be treated differently. And we've already in some sense done that in terms of the years of exposure within a facility and so forth. NIOSH does that to some extent themselves in terms of their -- their thinking about this, so...

DR. ZIEMER: Okay. Thank you very much. We're going to return to this topic tomorrow. And also in that connection we also have some SC&A documents that pertain to this that we'll be looking at.

DR. WADE: Right. If I could make a -- maybe three or four comments. The Chair is correct. I mean SC&A will be presenting tomorrow on performance on their contract two things. They'll talk about recommended procedures they have for the Board to follow. This will mesh very well with what you're discussing here, and I think it's important to hear that as you have a full discussion. SC&A will also be reporting on its initial review of NIOSH's procedures in terms of reviewing SEC petitions, so I think that will inform the discussion.

You know, you're an advisory committee to the Secretary of HHS. I took the opportunity, as I often do, to brief the Secretary's advisors on the agenda for this meeting, and the Secretary's people were very interested in this item in particular and they shared some thoughts with me that I'll share with you. They do want to see you give this -- this issue a full vetting. I think it's important that we'll hear public comment here. I think they're -- they're very interested in seeing that this most important issue be given a full vetting. They're particularly interested in being sure that the incoming Board members had an opportunity to participate in this process, as they'll be governed by the process. So they thought that was an important issue.

I also, as I listened to Dr. Melius' comments, think it might be appropriate if tomorrow when we have the discussion I could ask counsel to give us just some discussion of what timeliness means in the context of the Rule and the context of the law. I think it would be good to have that as background for the discussion. I think this is a very important issue. I

applaud the subcommittee's -- the working group's willingness to work on it, and I think it devotes our time and attention.

DR. ZIEMER: Thank you. Now the Chair is aware that this morning, due to the press of issues in the subcommittee session, we did have to omit the discussion of the individual dose reconstruction reviews. And since we now are a little bit ahead of schedule, I think we can do that. We will take a brief break, a ten-minute break, and then resume and maybe have about 45 minutes to work on that -- and we have some time tomorrow, too, so we don't have to necessarily get through it, but that would give us a head start on reviewing the first three sets of dose reconstruction reviews and perhaps coming to closure on some of those, as well. So let's take a ten-minute break and then we'll work on through to maybe just a few minutes past 4:30, so come back in ten minutes if you could and we'll resume from there.

(Whereupon, a recess was taken from 3:40 p.m. to 3:52 p.m.)

INDIVIDUAL DOSE RECONSTRUCTION REVIEWS (SETS 1,2 AND 3) DISCUSSION/CLOSURE
MR. MARK GRIFFON, ABRWH
DR. HANS BEHLING AND MS. KATHY BEHLING, SC&A
MR. STUART HINNEFELD, NIOSH

DR. ZIEMER: Okay, let us proceed. Board members, in your -- in your agenda book you'll find a tab called individual DR. There is a document in your notebook with the matrices. There's a matrix for cases one through 20. There's a matrix for cases 21 through 38 and then a matrix for cases 39 through 60. What I'm going to do is ask Kathy and Hans from our contractors to give us a review, status report and update on where we are on all of these. I can tell you that the matrix that you have for cases 21 to 30 (sic) at the present time does not have too much information.

DR. WADE: It has NIOSH's comments.

DR. ZIEMER: It has NIOSH's comments. It does not have anything on resolution or that kind of thing, but Kathy can give us an update on where we are on these various things.

I also know that, Board members, you just received -- I think maybe in the past week -- the matrix for cases 39 through 60, and I believe within the last couple of days there were some additional modifications of that report, so we'll get updated on that.

So I think today will pretty much just be

status report on these, and then we'll come back to these tomorrow, see what particular actions may be needed.

So Kathy, if you're ready to go or -- not quite ready? Okay.

MS. BEHLING: (Off microphone) (Unintelligible)

DR. ZIEMER: Hang on. Stand by.

(Pause)

MS. BEHLING: Is it on? Okay.

DR. ZIEMER: Lower it a little bit. It's a boom type.

MS. BEHLING: Okay, that's good. Okay.

All right. I'm Kathy Behling. I wasn't sure I was going to give this presentation so I hope you'll bear with me.

First of all I'll just give you a status as to where we are with regard to the dose reconstruction reviews that we've reviewed so far. We've had three sets of cases over the past year. The first set of 20 cases that have been reviewed and have been through the full resolution process, and I believe the Board has discussed all those issues and I don't know if there's any final issues that you need. I believe there was a discussion point on

possibly a letter that needs to go to HHS, and that may be the final resolution item for our first set of 20 cases.

The second set of 18 cases we have also submitted our report. We've held Board meetings on those reports. We've submitted the matrix to NIOSH and to the Board, and we've also had a working group meeting with NIOSH and -- to discuss the findings associated with the second set of cases. We were awaiting hopefully -- hoping that we would get the responses -- the written responses from NIOSH prior to this meeting, and I think Stu has put on the table those responses, but we really haven't had an opportunity to review those at this point in time.

The third set of cases we have submitted a draft -- the third set was a set of 22 cases, and that's what I'll give you a brief overview today on. Those cases, we've submitted a draft report, then we held our conference call meetings with the assigned Board members. We've made changes to that report based on those comments, and just as of the end of last week we submitted our matrix to the Board and

to NIOSH regarding the findings associated with those 22 cases. I'm sure that NIOSH has not had an opportunity to spend any time looking at those findings at this point.

And finally, we're currently working on the fourth set of 20 cases and we are nearing completion on that. In fact, one of the items that we're hoping that we will accomplish during this meeting is -- prior to us sending out the draft report on the fourth set, we thought it would be a more efficient process to send out individual reports to the assigned Board members, have our discussion with those Board members, and then publish our report. We're going to need to know at some point in time because we would like -- I think we'll possibly be in a position to attempt to set up those meetings maybe the fir-- the second week in February, so we'll need to know, with the new Board members, whose position they will be filling so that we know what cases they should be assigned.

Let's see here -- okay. With regard to -- I'm going to give you a little bit of an overview on the third set. I'm going to repeat some

things that you've heard before. This is for the benefit of the new Board members and also it's just a good reminder to let everyone know what we do when we go through this dose reconstruction process.

First of all, we look at all the data that NIOSH looks at, and the ORAU people look at. We get all the files. We look at all the same data. We take the IREP input sheets and up to this point in time, and you'll hear a little bit more about this later, we attempt to reproduce most of the doses or all the doses. If we can't reproduce all the doses, we do a spot check or a selection and we're -- like I say, we'll get into that a little bit furth-- more detail later on. When we look at did the dose reconstructor -- not only do we reproduce the dose, but we look at did the dose reconstructor use the appropriate procedure and did he understand and apply that procedure correctly. And then finally we obviously try to ensure that the regulations -- that they accomplish the regulations and that the assumptions used in the dose reconstructions are fair, consistent and well-grounded and best

available science. And the lastly we look at the CATI report and we look at all the data that was received by NIOSH and we try to assure that everything that was identified on that CATI was also looked at by NIOSH, that NIOSH received DOE records associated with everything that the -- the claimant states they were involved in at that facility or while they were working there -- if they were monitored, if they had bioass-- gave bioassay samples, all those types of things. We try to verify that that was looked into.

And in fact, for this particular set of cases, 20 of the 22 cases were considered advanced reviews. And in these cases -- this is where that last issue of the CATI report -- we were able to at least suggest in these, this third set of cases, that there may be some areas where NIOSH or SC&A can expand on the information that was available to us and by looking at these CATI reports we often see -- or we have seen in some of these cases where some of the data is not always available, and this has been the one area that we were able to expand upon in the advanced reviews.

Okay, here's something that we've talked a lot about, but it warrants repeating because it's so important to this process. And listening today I still hear that there's confusion over this issue. There's confusion over which procedures are being used and how the whole dose reconstruction process is going forward. The first thing that happens with a dose reconstruction is it is looked at by a group at ORAU that makes a determination based on the cancer and based on the preliminary look at the dose as to does it appear that this case is going to fall into one of these three categories, and the first category being a minimized dose reconstruction where dose reconstruction, for the sake of efficiency, does not have to calculate all the dose because it becomes apparent that there is sufficient dose to put that individual over the 50 percent POC. So for efficiency purposes, they do not need to calculate all the dose, even though they realize that there's more dose there that could have been added to that case.

The second category is the one we see the most of or that we've seen the most of in these 60

cases, and that's the maximizing approach. In this case the dose reconstructor, when he's given a dose reconstruction that he knows is going to be a maximizing dose, or he assumes that it's going to be a maximizing dose, he's using a set of procedures -- he can use, he should use a set of procedures that are specific to that case and to that situation -- there are procedures such as the maximum internal dose for complex-wide cases, TIB 2; TIB 8 and 10 that look at the external dosimetry records -- that he will use will use specifically and only when he is -- when he knows he's dealing with a maximizing dose reconstruction because in that case the dose reconstructor is attempting to show that even if we give all the benefit of the doubt to this claimant, he still does not go over that 50 percent.

And then the last case, which Hans will discuss a little bit at the end -- as our final slide. On our fourth set of cases now we are seeing some true best-estimate cases where both the internal and external have been -- were assessed in a very detailed approach. Here's

where NIOSH sharpens their pencil. They cross every T and dot every I and look at all of the records and try to get a more realistic assessment of the dose. And I can assure you, they put a lot of effort into these dose -- best-estimate approach cases. In fact that's why, when I said earlier up to this point in time we've been able to go through the IREP summary sheets and reproduce most of the doses, when we get into these best-estimates, just because of the level of effort that has to go into reproducing all of these doses and because of the computer programs and the workbooks that are being used, that's become a much more tedious task for us.

Oops, I went too far there. How do I back this up?

(Pause)

On this slide I'm giving you just an overview of the 22 cases that we've reviewed in this third set. As you can see, we designated case 39 and 40 as basic reviews. They were considered underestimates and they were compensated and so didn't really require that extra level of review that we wanted to look at

in the advanced cases, and cases 41 through 60 were advanced. But as you can see in my DR type column, all of these cases were, again, either maximized or in the one case of tab 47 was minimized. And so when you have these maximizing cases, as I said, there is a lot of conservatism built in, a lot of fat built in. So even when we have a finding where we might say that they didn't consider all the dose, because of the excess that's built into these cases it doesn't always have the impact that you might imagine it to have.

Okay. In this -- in this slide I just wanted to break down for you -- this is the breakdown that we use in our checklist, and these are the categories of types of information that we look at. First of all, the data collection issues, did NIOSH get all the data that they requested from DOE and did they get enough data to actually complete this dose reconstruction adequately. External dose issues, internal dose we look at, and also again the CATI information. And I've identified here each of our cases and where our findings fall under those various categories. And as you can see,

the majority of findings do fall under the external dose -- external dose issues. Okay. Here -- this gives you a basic breakdown of root cause of a lot of the findings that we've had up to this point in time. And as you can see, the misinterpretation of procedures is a 30 percent -- it's 30 percent of the findings. As we've alluded to, at this point in time the -- ORAU is using these dose reconstruction tools, or what we refer to as workbooks. They've had these workbooks for a long time. They haven't always been used. I sat through a portion of the training portion-- of a program, the dose -- that the dose reconstructors sit through to train them on how to be -- to do dose reconstructions and the use of the workbooks. And it was very clear that they are definitely pushing the dose reconstructor into using the workbooks much -- you know, it's a much more efficient process. It makes things more consistent, and it's a much easier approach for the dose reconstructor. So the findings -- a lot of the types of findings that you see on this pie chart will possibly go away, or at least be

reduced, when the dose reconstructors are using these workbooks almost exclusively. And as I mentioned, under Task III we have started to look at -- I think it's going to be very critical in the future for us to evaluate the workbooks and to ensure that the workbooks are using -- are appropriately using the information in the procedures and are appropriately using the information in the Technical Basis Documents.

I'm not going to go through all of the different findings. If anyone has any questions I can point to you which tabs -- give you examples for each of those different groups of findings as to which tab you can see an example of that particular finding.

And then -- at least lastly for me -- I've collated all 60 cases. And this time -- as opposed to last time -- I got the color coding correct on my pie chart. And you can see again, the statistics haven't changed much. When we add in the 60, there's a few additional pieces of the pie, such as the calcu-- early on there were some minor calculational errors, procedures that were not referenced and that

type of thing that you'll see on this pie chart that were not on the third set of 20 cases -- 22 cases. But by and large the statistics here stay the same.

The only thing that you may notice that's changed quite a bit is where we could not, as a reviewer, reproduce the dose. I believe in our 22 findings that number was two percent, and here you'll see 14. The reason for that difference in -- between two and 14 percent is during that second set of cases was the first time that we encountered where the dose reconstructor had done a best-estimate for the external dose and we were not aware that this workbook was being used and it raised a lot of questions. We could not reproduce a lot of information there, and so that's what increased that particular statistic, but we did not see quite as much of that.

And I believe that summarizes the third set, and I'll just let Hans give you the final overview and a little bit of a discussion as to what we're finding on this fourth set of 20 cases.

DR. ZIEMER: Yes. Before you cover the fourth

set, I want to ask a question that probably the Board members know the answer to, but it's important to get it on the public record. Of all of these findings, how many of them, if any, would have resulted in a change in the compensation to a worker?

DR. BEHLING: This is exactly --

MS. BEHLING: That's what Hans is going to cover at this point and I will tell you that the answer -- I'll give you the last slide here. At this point in time, as Hans will discuss with you, we've been dealing -- and this was the point -- strong point I was trying to make is that we've been dealing with minimum and maximum dose reconstructions, and there was a lot of fat built into these maximum dose reconstructions. And even in cases where we can determine that they may not have included what we -- that -- all of the neutron doses, which you'll see in some of these cases, if they go back and reassess those cases they're going to reassess that based on best-estimate procedures now, and they will no longer use ORAU TIB 2 and 8 and 10. I'm probably giving half of your --

DR. BEHLING: Stepping on my toes.
MS. BEHLING: Okay, but I do want to make one point, that the benefit of these 60 cases has been that the dose reconstructor in some cases does have the option, if they want to, of going to those procedures and manually going through this dose reconstruction. It's not going to be something that they're going to necessarily want to do because the workbooks is going to make it so convenient for them not to do that. But one thing that we have accomplished in these 60 cases, and it's also part of our Task III, is I think we've pointed out to NIOSH that there is -- these procedures are complex and they're not clear. And as you heard earlier, NIOSH has conceded that they are going to try to introduce more clarity into the procedures, and so that has been a benefit. As you see, our primary finding -- findings for 30 percent was misinterpretation of procedures, and those procedures still do need to be clarified and to make it easier for the dose reconstructor.
DR. ZIEMER: Okay, Hans.
DR. BEHLING: Yeah, she took most of my points away from me. I was just going to summarize

it, and I think the question really is what have we learned to date. And as you've just heard, we've had the opportunity now to review a total of three sets and we're well on our way to completing our fourth set, and at this point in time we can draw certain conclusions. Most of the audits that we've performed were essentially a few minimized dose reconstructions where a partial dose reconstruction was only necessary to get you over the 50 percent mark. But the most of -- the bulk of the audits were in fact maximized. And as Kathy clearly pointed out, these dose reconstructions involve an awful lot of gifts, that I -- you could call, gifts in the sense where the assigned doses far exceed what is reasonably, logically the dose that the person really received.

And when you find faults with -- or when you have findings with those, the impact, as you alluded to, is questionable because, as Kathy had pointed out, too, when you have a TIB 2 dose reconstruction that involves a hypothetical either high five or the 12/28 radionuclides, frequently the person who was

never even monitored for internal exposure was given a give of 16, 18 rem to an organ, which of course is probably a vast dose that didn't -- never existed. And so when you find a fault, as she pointed out, where there was a deficiency where perhaps a few missed doses were not properly calculated is -- is overshadowed by this huge dose that has been given. And of course if it comes down to the point where, in context with those errors, you are now actually approaching or exceeding 50 percent, the recourse for NIOSH is to say well, that gift is coming back. And so the answer to your question, Dr. Ziemer, is that to date, of all the 60 cases we have had, I would venture to say, and with a high degree of certainty, not one of them would be changed in context with the findings that we have identified. Nevertheless, these findings do point to certain things that I think for the sake of process credibility needs to be looked at. I don't think you can afford to continue to ignore even marginal errors that have no impact. It just doesn't look right when you commit certain errors, even if they have no

impact.
And having said that, our checklist has obviously made that very clear. If you look at each of the sets of audits you will see in each one in the executive summary there's a checklist, and you will always see that the impact has very -- it is a very low impact. In other words, we don't anticipate anything that would potentially have converted a non-compensable to a compensable case.
And at this point we are now in a fourth set, and for the first time we have encountered the best-estimate methodology, and I have to say I'm impressed. It's detailed, it's very complex, and it is extremely tedious. It's, I'm sure, very tedious for the dose reconstructors who've had to go through that exercise when you talk about somebody who has served 30 years at a facility, who has hundreds of urinalysis, dozens and dozens of chest counts, whole body counts, neutron exposures, photons exposures, and their records are just unbelievable in terms of the volume of records that now have to be assessed -- not in some blanket fashion, but actually modeled. And so

when I realize we're now at a new era, we're talking about a dose reconstruction that has probably cost an awful lot of time for the people who are doing it, and it's going to cost us a lot of time to review it.

And of course here now we're dealing with a situation where best estimates are usually invoked in situations where the potential exposures will lead to a POC somewhere between 45 and 50 percent. Now here's where you have to be very careful in looking at every aspect of the dose reconstruction process because at that point there is no buffer to work with. In other words, they're not going -- if I find a serious error here, there is no compensation that says well, then I'll take away my hypothetical internal and that amounts to 16 rem and you're only talking about one or two rem, and so of course we're back to square one. In the best estimate that will not be the case, and we will probably have situations where we will be looking at these findings. We will not do the POC calculation. That will go back to NIOSH. But I can assure you that there will be some instances where you are at 48 percent POC

and the findings that I've identified will certainly bring you dangerously close, if not over that limit. We will not proceed beyond the point of identifying these findings for you.

So all in all, we are now at a new position in our dose audits because we are now going to probably looking at more and more best estimates, and of course they will require a lot more detailed scrutiny on our part to assess.

As Kathy also mentioned, the use of workbooks have all but eliminated many of the errors we found under the min/max approach. We find them to be extremely useful. They're relatively easily audited. They make use of computer codes, Crystal Ball, where certain things, for instance, in the past where uncertainty was a key issue. We had identified early on many of the dose reconstructions when there was a dose of record; that is, we had deep dose recorded. But few people knew or could understand the procedures for determining what is the uncertainty in behalf. They either defaulted to a maximized approach by multiplying all

recorded dose and assuming that's the 95th percentile, which exempted them from the use of a parameter two introduction, or they simply ignored it. Now I look at Crystal Ball and there are methodologies that are built into the system that make use of Crystal Ball that calculate all those things for them. So the use of workbooks have certainly eliminated many of the concerns we found in the first 60. And unless we get additional audits that go back or were performed prior to the introduction of workbooks, I don't expect to see too many of these problems arise in the future.

DR. WADE: Thank you. Thank you, Hans, very much -- and Kathy very much.

DR. ZIEMER: Okay, Board members, do you have any questions for Hans or Kathy today?

I'd like to ask if -- will we have, by the end of this meeting this week, any updates on cases 21 through 38? Do we have --

DR. WADE: I think we --

DR. ZIEMER: -- we have the NIOSH responses --

DR. WADE: We have the NIOSH response. I think now the workgroup needs to get together and begin to work to closure --

DR. ZIEMER: Okay.
DR. WADE: -- on those issues. So I think --
DR. ZIEMER: Okay, so we don't have anything beyond those responses.
DR. WADE: Correct.
DR. ZIEMER: Okay, so we do need workgroup --
DR. WADE: I think the work of the Board on the hour we have subsequent to this is to put into place a course of action for each of the 20 sets. I think it's a different course of action for each of the 20 sets.
DR. ZIEMER: Other comments?
(No responses)
Okay. We will have an opportunity tomorrow to detail further a plan for bringing these to resolution and closure.
We are scheduled to have a public comment period at 5:30, which shows an hour break. I'm wondering if those members of the public who did wish to comment would -- would just as soon we proceeded and not keep you cooling your heels for an hour. I think if that's agreeable we will do that.
We'll take a brief break. I need to get the list of those who are commenting and give you a

chance to -- to have a comfort break. But we'll then begin, if that's agreeable, at 4:30 and proceed with the public comment period right away so people don't have to just wait around for an hour.

DR. WADE: For the record, we'll still be in public comment period come 5:30 so if there's someone who's coming back at 5:30, we would accommodate them, as well.

DR. ZIEMER: Right.

DR. WADE: This way everyone can be accommodated.

DR. ZIEMER: Okay, let's recess briefly and then we'll begin -- in about five minutes begin the public comment period.

(Whereupon, a recess was taken from 4:25 p.m. to 4:35 p.m.)

PUBLIC COMMENT

DR. ZIEMER: Okay, as we begin our public comment session, let me make just a few remarks and maybe talk about some ground rules here for us. We do have around 20 people that have asked to speak. You can do the math and you see that if we have just an hour, that doesn't give anybody very much time. We can -- we can

go over a little bit. We also have some members of the public who wish to comment from afar and will be calling in at 5:30, and we need to accommodate them, as well.

The public comment period is an opportunity for you to share your views and concerns with the Board. Let me tell you that -- or remind you that this Board is not the group that does the dose reconstructions, or makes the determinations of who is eligible for compensation, nor does this Board review -- we're not a review board for cases which are turned down. That is, we are not an appeals board. We are a Board that has very specific and somewhat -- and well-defined responsibilities in terms of overseeing, reviewing what the federal agencies are doing -- more specifically, NIOSH -- and you've seen -- those of you who've been here today recognize some of that. We do review a certain number of dose reconstructions from what you might call an audit point of view to determine if NIOSH is following the proper procedures -- its own procedures -- appropriately. And from that we make determinations as to whether there are

changes needed in the program and that sort of thing. But we do not handle the individual cases.

We are pleased to have you share concerns about your own case, but keep in mind as we hear that information we look at it from the point of view of what in the system isn't working well. We're -- if you have concerns about whether your information is being properly handled or listened to or whatever, that helps us to determine whether the system is working well and where fixes need to be made.

If you have detailed concerns about your individual case, you need to work directly with the NIOSH people, and there are some of those here today. If they don't have the information you need or the answers, they will get them for you. So keep that in mind as we proceed.

And again, be cognizant of the fact that there are other folks who also wish to be heard, so you need to be as concise as you can. We would ask you just to come -- you can use the mike in the aisle there or you're welcome to come to the mike in the front, whatever you're most comfortable with, and proceed from there.

And I'll just take these in the order that people signed up. And if some are not here because they thought that they would be starting at 5:30, we'll come back and catch them toward the end. First, Kenny Cook. Is Kenny here?

UNIDENTIFIED: No. He -- he's expecting to be here by 5:30.

DR. ZIEMER: Okay, we'll catch Kenny then later.

Larry Jones?

MR. JONES: Yes, I'm Larry Jones. I'm the ATLC health and safety rep at Y-12. I'm also a painter by trade. I'd like to read a little thing here.

(Reading) The workers and former workers at the Y-12 site need to be treated as an equal to the former workers and present workers of the K-25 site. The K-25 site and others have a special cohort for a number of cancer, that number at this time is 22. If you worked at one of these sites for over 250 days and become sick with one of these approved cancers, you are put in the special cohort, which makes the cancers an occupational illness, which makes it possible

to receive a compensation. All the ATLC is asking is to be treated as equal to the past and present workers of the K-25 site. Remember, we, the past and present workers at the Y-12, helped to win the cold war.

Okay, on another note, I filed under my father that passed away in '79, and I'd like to give just a little information -- a brief. The phone interviews that are -- you know, that they call and ask the wife, my mother -- I looked at what she give to the answers to the questions, and they was eight questions. I don't know, I don't know, he did not tell me, he was an engineer, he worked at X-10. Any other -- further comments, I have none. And that -- that was the extent of the phone conversation.

Well, then the other thing, I was looking at the dose reconstruction. My father worked at X-10 -- I mean worked for X-10 at the Y-12 plant. Well, the dose reconstruction was done for an employee that works at X-10. Well, you know, that's one valley over. There's no way that you could have a possible -- I mean high or low, it couldn't be right. I mean it just

couldn't be right. So I mean -- and this isn't something they did in the last -- three or four years ago. This has happened this past year. Something on this special cohorts that were working and -- and I see pipe-fitters only and stuff, I'd like to tell that every -- all the crafts out there worked in the machine shops, the chemical areas. It wasn't just a spot over here and just a few people worked. You know, you had a flow of all maintenance. You know, because you say maintenance, you're thinking maintenance on a machine. Well, that's not true. You've got the whole building that you do maintenance on. So you have groups of guys that come from east end to the west end, you know, that might have spent a year in a particular building. So that's -- that's the things that I don't think are really thought about. You know, you have people that traveled the whole plant. And then you have employees that's been out there 30 years, well, there's no doubt that in the maintenance departments they've worked in every building for a continued time. So that's something I'd like to -- to consider. That's my comment.

DR. ZIEMER: Thank you very much. And with regard to your one comment on the working at Y-12 even though assigned to X-10, and I know there are a number in that category, if in fact you believe there are factual errors in the record, please work with one of the NIOSH --

MR. JONES: Sure.

DR. ZIEMER: -- people to --

MR. JONES: Sure.

DR. ZIEMER: -- to make sure that that correction is addressed.

MR. JONES: Sure.

DR. ZIEMER: That will apply to anyone here if those kind of things arise. Thank you, Larry.

MR. JONES: Thank you.

DR. ZIEMER: Barbara Walton.

MS. WALTON: I want to start by thanking you for meeting here and for all the good work you're doing, and for helping me to understand the process better.

I was born in Bethlehem and my -- I have three generations of family members who worked for Bethlehem Steel. However, I didn't find out till I got here today that -- is that you're only considering the Lackawanna and that wasn't

on your agenda because the *Federal Register* notices leave something to be desired, which is not your fault. But if -- if you can get NIOSH to get you to review them, it might help.

But I do want to point out that Bethlehem Steel went bankrupt and was later sold, and so there may be some critical -- criticality to timeliness of that because people lost their health benefits. At that time that they were sold, my father was deceased and he did have cancer, and my mother did, too, and there were exposures at Bethlehem plant, also, and I'll say a few words about that. I don't want to take up the time 'cause most -- you know, the Y-12 is the main thing here.

But anyway, my mom lost her health insurance because of the sale. Now the pension money was put separately so -- you know. So anyway, timeliness may be a consideration when you get to the letters from the Congresspeople and all.

Now with regar-- I'm -- I think it's great that you have data for the people who worked here, because there are other occupations who also were involved in defense during World War II and my -- you know, I was born before -- before

the war started and my dad worked on defense in the steel industry at the Bethlehem plant. He worked in the coke division where he -- the high -- I think the exposures in -- at the Bethlehem plant were probably higher there because of coal with all the carcinogens and radiation, and the proximity that they would get to the -- you know, and this is over a long period of time. But not only was he exposed, my mother was also exposed because his dirty clothes came home.

Now I think that probably that did not happen here -- I hope it didn't happen, I mean, 'cause I think they had safety clothes for people they thought would be exposed. But people didn't recognize how close coal, you know, was. And -- and it was closer proximity in a coke oven than it would be in a steam plant that generates electricity because there you have an automated process where people are further away. So I just wanted to bring that to your attention and I would hope that someday NIOSH might consider other types of -- other groups other than working with the actual nuclear materials. Thank you.

DR. ZIEMER: Thank you very much. Next we have Kathy Bates.

MS. BATES: Do you mind if I stand at the lectern?

DR. ZIEMER: That's fine.

MS. BATES: Well, my name is Kathy Bates, and thank you for this opportunity to speak to you this evening. I'm reading a statement that I have prepared for the session, and I'm speaking on behalf of my mother, Mildred Gore.

(Reading) My understanding is that the Advisory Board is charged with overseeing and giving advice on the dose reconstruction process, specifically advice to the program in terms of whether dose reconstructions are being done properly. You've talked a lot today about the procedural aspect of dose reconstruction. I'd like to make some comments on the actual execution of the process.

My father, James Gore, worked at the Y-12 facility from August 1968 to October 1994. He was diagnosed with ocular melanoma in July 1977 and died in April 2001 from the melanoma that had metastasized to the liver. My mother filed a claim under EEOICPA for my father in January

2003. We received the recommended decision dated November 17th, 2005 denying the claim. We filed an appeal on January 10th, 2006 and requested an oral hearing on our objections. To date we have not received a response from NIOSH regarding the appeal, but I recognize that this may take some time.

My comments address the dose reconstruction process defined in 42 CFR 82, using our case to illustrate some issues. Specifically we stated three objections to the recommended decision. The objection letter to NIOSH totals 15 pages. If appropriate, I would be happy to provide you with copies of that. If I went through all of the issues in detail in our objection, I would consume this entire public comment session so I will try to briefly summarize key points.

The first objection is with respect to 42 CFR Section 82.10 which outlines the requirements for a closing interview. My mother was not afforded the opportunity to review the draft dose reconstruction report for my father prior to the closing interview, and did not have the opportunity to provide additional relevant information that may affect the dose

reconstruction during the closing interview process. She was initially sent the wrong report. It was for a security guard in Paducah, Kentucky. Her closing interview was conducted even though she did not have the report for my father.

The second objection is with respect to the dose reconstruction estimate for my father. The draft dose reconstruction report provided to my mother is very disconcerting. It is stated in the draft dose reconstruction report, quote, since no monitoring records were available, the maximum 50th percentile dose for each given year of employment from Oak Ridge National Laboratory, Oak Ridge Gaseous Diffusion Plant, Hanford Site, Paducah Gaseous Diffusion Plant, Savannah River Site, and Portsmouth Gaseous Diffusion Plant was assigned as an unmonitored dose for Mr. Gore.

We object to NIOSH's assertion that my father was an unmonitored employee. Again, 42 CFR Section 82.10 provides an excellent high level of review of the steps NIOSH is supposed to take in developing a dose reconstruction estimate. It is not apparent in the dose

reconstruction report for my father that NIOSH obtained any information relating to my father's employment history at Y-12 for his 26-year career, which according to 42 CFR Section 82.14 should include, quote, job title held by year and work locations, including site names, building numbers, technical areas and duration of relevant employment or tasks, end quote. The section also includes numerous approaches to developing a dose reconstruction when information is missing or incomplete. If there was an attempt to create a reasonable estimate for radiation dose reconstruction following the procedures outlined in 42 CFR 82, it is not apparent from the information NIOSH provided in the report.

NIOSH asserts that no external or internal monitoring records were available from DOE for my father. My mother did provide information in the initial telephone interview that my father routinely wore a dosimetry badge, but apparently her information was not considered, quote, reasonable, supported by substantial evidence and is not refuted by other evidence, end quote, as required in 42 CFR 82.10(e).

However, NIOSH apparently felt that the information provided by my mother with respect to my father's job title was reasonable. In the initial telephone interview she stated he was a, quote, weapons production supervisor, end quote, and this is the job description NIOSH references throughout the report. They even acknowledge that this information came from her.

Based upon this job description NIOSH makes numerous assumptions to support the dose reconstruction for my father as an unmonitored employee. The report states, quote, As a weapons production supervisor -- engineer, in parentheses -- Mr. Gore's work location is not known, end quote. And later in the same paragraph, quote, External electron radiation was not considered in this dose reconstruction because Mr. Gore did not work directly with radioactive materials, end quote.

NIOSH apparently had no records indicating where my father worked. But going on my mother's statement that he was a, quote, weapons production supervisor, end quote, they made the assumption that he did not work

directly with radioactive materials. In the initial telephone interview my mother provided the name of at least one of my father's supervisors that she was aware of. It is not apparent in the report that NIOSH made any attempt to contact this individual to substantiate or refute information provided by my mother, as should have occurred per 42 CFR Section 82.10(e)(4).

There are several other issues that are outlined in our appeal with respect to the specific objection. In the interest of time I will not go through them here.

The third objection is to NIOSH's statement in the notice of recommended decision that the probability of causation for the primary colon cancer was determined to be 25.40 percent. My father did not have colon cancer, nor was he ever diagnosed with colon cancer. Obviously this is a form letter where Mr. Gore's information was input into the letter. This is an unacceptable error. This type of error causes grave concern regarding the quality control and quality assurance associated with this process.

Lastly on the recommended decision, it looks like the file number is supposed to be my father's Social Security number. However, if this is what it is, it is incorrect. His Social Security number is recorded properly in the transcript of the initial telephone interview and on the draft dose reconstruction report. Is this error of any significance? In my father's case it appears that there was a significant failure of the process. My mother's information that my father routinely wore a dosimetry badge was not apparently considered reasonable, and was therefore not considered by NIOSH. How is this favorable to the claimant? Does the burden of proof lie with the claimant, who in this case is my mother? My father did not discuss his job with my mother, or with me, or with my brothers. What little information we know about his employment history my mother has provided to NIOSH. Unfortunately, my father is deceased and cannot recreate his job history for NIOSH. I do not believe that NIOSH had any employment records for my father based upon statements made in the draft dose reconstruction report.

Exactly what information did NIOSH base my father's dose reconstruction on, other than my mother's statement that he was a weapons production supervisor? If, as NIOSH asserts, there were no DOE records of monitoring, and apparently there was no information relating to his job history or where he worked, how could any type of assumptions be made that he was an unmonitored employee? It is conceivable that all of my father's records may be missing or lost. If this is in fact the case, how could NIOSH develop a reasonable dose reconstruction? The probability of causation for the primary colon cancer statement in the recommended decision is the proverbial icing on the cake. I'm absolutely appalled that this type of error occurred. What are the procedures for quality control and quality assurance that govern this process? Is what we have experienced in our claim process an isolated event, or a systemic problem? Who is responsible for ensuring that, within reason, 42 CFR 82 is followed to the extent possible?

As I stated earlier, we have filed an appeal to the denial of the claim and are presently

awaiting a response from NIOSH. In the meantime I have filed a request under the Freedom of Information Act to DOE, U.S. Department of Energy, Oak Ridge Operations, for all of my father's records, including medical, personnel, radiation exposure, chest X-rays, industrial hygiene, personal security file and OPM background investigation. I've also filed a FOIA request to NIOSH for all administrative records pertaining to this claim.

Since filing the appeal I have also obtained more information, such as what building my father worked in for at least some part of his career, and the names of two more coworkers who are not deceased, to the best of my knowledge. I understand the Advisory Board does not advise on individual dose reconstructions. I am not asking the Advisory Board to intervene in the appeal process for this particular claim. What I am asking the Advisory Board is -- for is an accounting of how the execution of the process could so -- could have so apparently failed with respect to my father's claim. Thank you for your time.

DR. ZIEMER: Thank you very much, and certainly

we'll be interested in learning how this works out with -- with the appeal process. We appreciate your pointing out those issues.

Janet Michael. Janet Michael?

MS. MICHELE*: Good afternoon. It's Janet Michele, but that's okay.

DR. ZIEMER: Michele, uh-huh.

MS. MICHELE: Everybody gets it wrong. Good evening, Dr. Ziemer and members of the Board and everyone in the audience. Thank you for allowing this time for public comments.

I'm here on behalf of the Coalition for a Healthy Environment, and also the Alliance for Nuclear Worker Advocacy Groups. CHE is an 11-year Oak Ridge group -- 11-year-old Oak Ridge group, and we're probably the ones responsible for all of you all holding your positions and jobs here today, so...

Anyway, we're -- and we're also one of the founding members of the Alliance for Nuclear Worker Advocacy Groups. Before I was a -- in my -- well, actually in my advocacy role and as my health has allowed, just to tell you a little bit about who I am, I've worked for many years on this -- on these issues. Recently

I've attended and participated, when my health has allowed and where appropriate, in many meetings and hearings in D.C., including meetings at the White House, the Voinovich-Thompson hearing, the judiciary hearing, all in 2000, and the EEOICPA reform hearings in '03 and '04.

But before my advocacy role I was a pollution prevention project manager, and I worked for two years at DOE headquarters helping to implement a Department-wide program and a strategic plan. I worked on audits and training programs and DOE-wide conferences, and I managed subcontractors, so I actually understand a lot of what you all are going through. I've worked on this side of the table, so I understand these -- a lot of the issues that you're going through.

My comments have got rearranged a little bit. It's been -- it's been painful to see what I feel has been a somewhat wasteful spending of federal funds, and I'm referring in particular to the subject of the site profiles. It just seems like five years is an awfully long time to wait for these crucial -- these documents to

happen that help provide the foundation for doing these dose reconstructions. And in the short time that SCA has had to do the audits on these documents, there've been quite a few deficiencies found, as you well know, and these have been -- include but not -- are not limited to accounting for ingestion as a pathway for internal dose, questionable air sampling data, the presence of high fired oxides and the lack of worker input.

And of course we've talked also about these 6,000 pages of recently-classified dose records that have been released on the Calutrons and the Cyclotron. And you know, some people may be wondering, you know, why are these surfacing now? Well, because we've had an audit and this has forced a critical assessment, and this review process is very healthy. And it's really important because claimants lack the resources to bring this type of thing to light, and so this is really important and I applaud this audit and I'm glad it's happening.

One of the things I think that's been important is that NIOSH has failed to validate and credit the workers' and survivors' assertions of the

working conditions at the site, and we've heard this already. It appears that it has relied solely on the ORAU personnel when developing the site profiles. May not be the case, but that's what it appears to be. And we've always thought there's been a possible conflict of interest with ORAU developing the site profiles. It seems that there have been five sites where the major contributor to the site profile was employed at the facility and responsible for the monitoring program. Instead of banning that person from participating for that site, it appears that NIOSH has simply changed the rules.

Another area of major concern of course is the special cohort petitions, particularly the revised rules for evaluation. The EEOICPA reform bill of 2004 states that NIOSH has 180 days to make a recommendation to the Advisory Board. Well, during the January 9th, 2006 teleconference Mr. Larry Elliott was asked by a member of the Board about this time line and what constitutes a recommendation. And he responded by saying it all depends on who is interpreting it.

This appears to us that NIOSH is looking for ways to circumvent this time line. So we felt like this reform that was passed in 2004 was supposed to expedite the Special Exposure Cohort petition process. But it appears that a recommendation can also be a request for more time. This delaying tactic appears to be contrary to the law.

We've also learned that DOE and the contractors have been withholding records, specifically pathology reports and autopsies of the claimants or their deceased family members, and this does not allow for a complete evaluation. And I'm going to go into this in a little bit more detail. Claimant work histories have not been thoroughly investigators -- investigated. Many workers have spent time at multiple facilities and not just in multiple places within a site, but at multiple facilities. As an example, one worker was assigned to Oak Ridge, Los Alamos, Hanford and Lawrence Berkeley. And one worker worked at seven different reactors, but his dose reconstruction only covered one reactor. It only covered the graphite reactor. And another worker was in

Oak Ridge at all three sites and at the Nevada Test Site and at the test sites in the Pacific, but his dose reconstruction didn't cover all those sites. Why is this happening? This is something that really needs to be looked at. So we would also like to know what NIOSH's plans are -- this is not the Board, this is NIOSH -- what their plans are for complying with the six-months requirement for adding cancers, and this comes from the Labor/HHS appropriations bill.

Now I was told by the ladies out front that I would be given the opportunity to sort of switch gears here. There's a woman that I went to high school with who lives in California now and she is working on her father's claim. Her mother lives here in Oak Ridge, but she's very ill and is not able to be here today to speak for herself. And if you'll allow me, I'll just read a little bit of what she would say if she were here today. She's -- and this is a little bit of what I referred to.

(Reading) My dad worked on seven reactors at ORNL and other sites, and the dose reconstruction only used the graphite reactor.

None of his colleagues whose names were given were interviewed, and two have since died. And while the judges were asked for development of all the other sites where Dad did experiments -- Los Alamos, Lawrence Berkeley and Hanford -- for the purpose of possible new dose reconstruction, the claims examiner says she has nothing to do with that -- separate department, not even a discussion. But here's what the judge agreed with me on.

This was during their appeal, at a hearing. (Reading) While we cannot discuss or challenge NIOSH methodology or calculation for risk, et cetera, we can absolutely question its information-gathering.

One other thing that that's pretty creepy -- these are her words -- in our claim is that this examiner revealed there is medical evidence in the file that we have never seen, a pathology report and an autopsy.

So apparently when her father died, his body was taken from the morgue and an autopsy was done and pathology, labs were done, without the family's knowledge or consent. This is major.

Her dad worked at ORNL from 1954 to 1976. Dr.

Eugene Eichler was a pioneer in the field of nuclear chemistry. He did experiments on every reactor at Oak Ridge, often sleeping at the test site.

One of the fundamental and flagrant problems is that while this very statute was enacted because employees were denied access to information about the potential for exposure and their actual exposure and, as the statute admits, because no oversight existed whatsoever, claimants cannot challenge, question or even learn what the methodology and basis for calculation has been.

I have since sent her some information on this. No outside agency can check, test, critique or evaluate fairness and/or corruption of the process. This boggles the mind and is an affront to justice. Rather than providing a remedy in the law, a claimant-friendly process has become a punitive one.

As you can see, she's quite upset. I'm sorry. Let's see.

Given the sketchy nature of ORNL records and that only minimal interviewing was conducted -- this is when her mother gave the names of other

of her father's colleagues to contact -- while contact information was provided for three of my father's closest colleagues, they were never interviewed. The interview was only of my mother, who knew very little about my father's circumst-- sometimes secret work.

Understandably the process of revisiting the circumstances of my father's illnesses and premature death have been traumatic for her, and possibly limiting her recollections even more.

Her father died at age 46 and he had two different cancers. Let's see.

My father's dosimetry records are a textbook in what shouldn't happen -- lost, not kept, badge left somewhere, et cetera -- and once he started work at the Cyclotron, he wasn't monitored, which didn't make sense for someone who had a prior cancer.

He'd already had a cancer before that happened.

I'm really skipping around here and I'll go ahead and stop because she has loads and loads of notes, so I hope I've left you with a couple of questions and comments here, and I really appreciate the time. Thank you.

DR. ZIEMER: Thank you very much, Janet. Next, Robert Pidgeon -- is it Robert Pidgeon?

(No responses)

Okay. Gertrude Timmons?

(No responses)

Doris Henline, or -- H-e-n-l-i-n-e, it looks like. Okay, we'll skip ahead. Janell -- oh is this Doris?

UNIDENTIFIED: Yes.

DR. ZIEMER: Thank you.

UNIDENTIFIED: (Off microphone) (Unintelligible)

DR. ZIEMER: No, that's fine. You can distribute those, sure.

MS. BARTON: We are here to request that Building 1916 (sic) T-1, now known as the Office of Science and Technical Information, OSTI, at 175 Oak Ridge Turnpike, Oak Ridge, Tennessee, be added to the DOE covered facilities list under the EEOICPA. This building was built as a warehouse in 1945 during the Manhattan Project era. However, the Technical Information Center, TIC, now known as OSTI, did not take occupancy of the facility until 1957. Although the use and contents of

this building between '45 and '57 years is unknown to us, we do know that the use of chemicals in the printing plant, microfiche production area, and the photo lab were prevalent in the building from 1957 until the mid-'90s. The technical documents which were processed through TIC came from all over the country, from testing sites, labs and so forth, and possibly carried hazardous contaminants from these areas. Although the 1961 (sic) T-1 building was supposedly built as a warehouse, it contains three vault areas with one-foot-thick concrete walls. We do not know what these vaults were used for prior to TIC's occupancy. We have heard that this building was a staging area for receiving and distribution of railroad shipments sent to and from Y-12, X-10 and K-25, but we have not yet been able to prove it.

When we learned of the EEOICPA program we began to investigate the illnesses of DOE and contractor employees who worked in 1916 (sic) T-1, both living and deceased. We have identified 75 out of approximately 150 federal workers who have had catastrophic illnesses.

Fifty-six have had cancer and 14 have had neurological illnesses, eight of whom worked in the same area of the building. Thirty of these 75 workers are now deceased. We know there are a number of other sick workers who have not yet been identified. This is an extraordinarily high incidence of illnesses for this small number of workers. We do not believe this is a coincidence, but was caused by working in the 1961 T (sic) building.

We are two of the surviving employees who had cancer. I am JoNell Barton and was employed by the Atomic Energy Commission at the Technical Information Center from January of '57 until July of '59. In September 1960 at the age of 22 I was diagnosed with thyroid cancer and had a total thyroidectomy. My son was nine months old at the time of my surgery, and I was never able to conceive again. This surgery was less than a year and a half after leaving TIC.

I was again employed by TIC from February '63 to December, 1965. In November 1985 I was diagnosed with breast cancer and had a total mastectomy.

MS. HENLINE: I am Doris Henline and worked in

1916 T-1 from February '61 to December 1995. I was diagnosed with breast cancer in May of 1991 and had a total mastectomy of my left breast. The cancer had metastasized to my lymph glands and I underwent chemotherapy and took tamoxyphen for five years.

MS. BARTON: We met with Congressman John Duncan in September 2005, asking his support in getting 1916 (sic) T-1, OSTI, added to the EEOICPA list of covered facilities. He contacted DOE and DOL October the 13 of 2005 on our behalf, and he received a reply from DOL on December the 14th and another reply from DOL on January the 3rd, 2006, which he provided to us. Both letters were signed by Mr. Peter M. Turcic, Director, Division of Energy Employees Occupational Illness Compensation. Mr. Turcic indicated that the Department of Labor was aware of the issue of whether or not 1916 T-1 OSTI could be considered a covered facility, and that DOL would investigate this matter. Is an investigation of this facility currently being conducted? If not, we are petitioning you to begin an investigation as soon as possible.

Thank you for your time and the opportunity to present our case.

DR. ZIEMER: Thank you very much, ladies, and the Board doesn't know the answer to your question. But I should point out to you, Mr. Turcic is somewhere in the audience today and you can corner him and maybe follow up.

UNIDENTIFIED: (Off microphone) (Unintelligible)

DR. ZIEMER: Put Mr. Turcic on the spot. Pete, maybe you can make yourself known to the ladies here.

R. L. Ayers, Mr. Ayers?

(No responses)

Let me skip ahead then. Would it be Alissa Robinson? Yes. Do I pronounce that correctly? Is it Alissa, Aliza?

MS. AYERS: My name is R.L., initials (unintelligible) --

DR. ZIEMER: Oh, we've got R.L. Ayers, I'm -- I got too fast here for you. Go ahead.

MS. AYERS: Okay then.

DR. ZIEMER: It's Ms. Ayers.

MS. AYERS: My name is R.L. Ayers. My husband was Leroy Ayers. I came here in 1943. My

husband came in '42. And I don't know whether I have a comment or a complaint -- all of mine is complaints. I have a question that I want NIOSH or somebody to answer for me. And it's why that I have not -- my husband died in 2002. Why that I have not been able to draw his money. Each time that I contact Jacksonville, Florida, the headquarters, they ask me for this and ask me for that. I have sent them everything that they asked me for, and I have had three different case workers -- three of them, 'cause when I call down there and talk to one, when I call back again I have another one, I don't have that same one anymore. And why do they keep switching me from here, there and yonder? I don't understand that.

And my husband died of silicosis. They told me -- Ms. Yvette Waters told me that they didn't pay for silicosis in the state of Tennessee, said it was Nevada or Alaska. So -- but they are paying for silicosis in Tennessee because I have a friend who lives up at -- up here in Tennessee that received this money, and he had silicosis. Now what is wrong? I would like to know.

When -- each time I call down to Jacksonville, they will refer me to Paducah, Kentucky. My husband has never even been in Paducah, Kentucky. Why do they tell me about Paducah, Kentucky? They gave me the address and all of that stuff to contact them in Paducah, Kentucky. I don't understand any of this, because I have given them everything that they asked me for.

I wrote to Mr. George Bush. I think that's one reason they keep on changing me from this one to that one. But -- and here's the letter. Here's the answer that I got back from him. I got an answer from him. And he told me that somebody was going to contact me, and they would contact me within the next -- he said three or four weeks. But somebody contacted me within the next three or four days. They did. And they blessed me out that since I went to the trouble to write to the President. I couldn't get any answers from anybody else. And I still don't understand. I still want an answer.

My husband had silicosis, so -- and on his death certificate they put pneumonia on there.

Of course that is a lung disease. Silicosis is a lung disease. Tuberculosis is a lung disease, but he didn't have any of those. He had silicosis. Once those lungs fill up, no air go through, then you are gone. And that's what happened to him. But still they're saying that they're not paying for silicosis in the state of Tennessee. Isn't that discrimination, or what is that?

DR. ZIEMER: We need to find out. This Board is not going to be able to answer your questions since we're dealing with cancers. But I'm wondering if some of the NIOSH staff can help Ms. Ayers get in contact with the right person. It may be Department of Labor. I'm not really certain. But we do have some folks here and -- can some of the NIOSH staff help direct her? Just go back there to Mr. Hinnefeld in the back and he's going to try to get you with --

MS. AYERS: All right. I have a stack of letters from the Department of Labor this thick, out of Washington. I still --

DR. ZIEMER: Well, Stu's going to try to help you here, so --

MS. AYERS: All right, then. Thank you very much.

DR. ZIEMER: Silicosis is out of this Board's purview, but we do want to try to get you with the right person, so -- I know these bureaucratic runarounds are very, very frustrating. I don't know if we can solve your problem, but we'll try to help you.

MS. AYERS: Thank you very much.

DR. ZIEMER: Now Ms. Robinson, is she here? I believe it's Robinson.

(No responses)

Okay. Let's see, okay, let's skip ahead. George Eldridge -- George? Please.

MR. ELDRIDGE: First of all I'd like to thank you for the opportunity to comment. I'm not here to criticize. I'm here to tell a story in hopes that NIOSH and any other stakeholder agencies involved in this process might learn something from my story and might make this process a little easier on all of us.

My father was Dr. James S. Eldridge. He graduated the University of Tennessee with a P.H. degree in analytical chemistry and went to work immediately from U.T. for the Oak Ridge

Institute of Nuclear Studies here at Oak Ridge. This was during the time period of 1950 to 1956. In 1956 he moved subsequently to Oak Ridge National Laboratory to the analytical chemistry division where he stayed until his passing in 1990.

Mr. Eldridge died of complications arising from a diagnosed metastatic esophageal cancer, which of course was one of the qualifying cancers under this program. The -- we filed a claim for Mr. Eldridge in December of 2001, and in the fall of 2005 we received our first OCAS recommendation letter, which stated basically that the total estimated rem to the esophagus was beneath the causation level to recommend payment under this claim.

Subsequently it talked about signing a letter just testifying to the fact that we had received the recommendation letter -- this is not a denial, just a recommendation. And we were also set up with a telephone interview. So the first incident was during the telephone interview. We had a series of questions, and the letter that had come referred to my father's first employment at Oak Ridge

Hospital. So my first question to the health physicist who performed the telephone interview was why are you stating that he worked for Oak Ridge Hospital? And the conversation was well, that's what our records indicate. And we talked about the Oak Ridge Institute for Nuclear Studies whom this employee had never heard of, and I had to go through and describe the history of ORAU and ORISE and ORINS. And during the course of this conversation he explained to me -- he talked about claimant-favorable procedures, how they used an X-10 site profile for workers at Oak Ridge Hospital. And the conversation he and I had turned to why would you use an X-10 site profile for Oak Ridge Institute for Nuclear Studies? They're separate physical locations, total separate functions. What's the technical basis for that?

Again the response at this time was that X-10 was the dirtiest place to work in Oak Ridge, and any time there was not a site profile to work from that the policy of NIOSH was to apply the X-10 site profile.

I began to question, if that were true, why did

we have the SEC petitions, special exemption (sic) cohort classes. Why didn't we just apply the X-10 site profile to anyone who was unmonitored or if it worked at a facility that went unmonitored and so forth.

At this time the person I was talking to said I tell you what, we probably need to investigate this further. Don't sign the letter and send it back in. We'll -- we're going to redo the dose construction and we'll get back with you. Keep in mind this was in the spring of 2005. Now it had taken from December of 2001 to get us to the dose reconstruction and the notification in early 2005.

In the late summer of 2005 we were -- received our second OCAS recommendation report. And oddly, the total rem calculation to the esophagus had gone down, was even lower, so we were once again scheduled for a conference call with the HP involved. And during the course of my conversation with this gentleman -- his name was Chris and when I asked for his last name I was informed that they weren't allowed to give out last names, so all I know this person as is Chris.

Once again the letter stated the employment at Oak Ridge Hospital, so that was our first conversation point. So I asked Chris what it was going to take to get the record changed to indicate this was the Oak Ridge Institute of Nuclear Studies. And the reply that I got was that "I researched, and your father worked at Oak Ridge Hospital and all he did was take X-rays."

Now that -- that's not something to tell someone. My father was a Ph.D. He worked under Dr. Marshall Brucer. I have many documented examples of his research papers where he worked with gallium and other medical radioisotopes. He did not take X-rays and was not an X-ray technician at Oak Ridge Hospital.

We went further into the conversation, again talking about in all cases where we do not have a site profile to use in this process, we apply the X-10 site profile because it's the most claimant-favorable. Once again, I asked Chris, if that were the case, why aren't you doing this for Y-12 workers, K-25 workers? Well, the K-25 workers fall into the gaseous diffusion plants, they're automatically exempt. He could

not answer a why for certain other classes -- Bethlehem Steel, why certain groups at Y-12. At this point Chris and I mutually agreed that there's nothing more I could do. This OCAS recommendation was going to move forward to the Department of Labor for their final recommendation.

Immediately following that, my sister, who's also part of the claimant package, had her telephone interview. And during her course of the conversation with the HP they had stopped the process a second time. The reason being this time during their conversations, while my father was employed at Oak Ridge National Laboratory, he went to many different sites nationally and internationally. He was in Yugoslavia for symposiums. He visited some sites over there that dealt with uranium processing. He was at Three Mile Island, called there when that incident occurred. He was two weeks at the Nevada Test Site for a major exercise in 1983. He's been at Lawrence Livermore, many other national laboratories. So during the course of her conversation, Chris -- again -- wanted to know why these weren't

documented, why we had not researched and provided the, you know, exits and entries to all these different facilities that he's been to.

Well, no one in this process ever told us that it's up to us to provide this data during the claimant process, so we're on hold for that now.

The second part of this process involved the application for a facility or an area where someone worked to become part of the SEC class. We've filed a petition to have anyone who worked at ORINS from the period of 1950 to 1956 to become part of an SEC class. And the reason for that is because we have affidavits that no internal monitoring was performed at these facilities, as well as no air monitoring. During the course of conversations in this arena, we were informed -- once again the comparison that even though there was no monitoring done at the Oak Ridge Institute for Nuclear Studies, that nothing dangerous occurred there. We have many documents, printed right off the Department of Energy's -- what used to be known as the H-rex or Human

Radiation Experimentation web site is now the ACHRE web site, maintained by ORISE. We have all kind of quotations, and I'd like to read to you one, if I may. This involves an experiment that was done at ORINS involving radioactive gallium. I'm sorry, I should have been better prepared here.

(Pause)

The title of this report from this web site is "An Example of Hopes Unfulfilled, the Gallium 72 Experiments." (Reading) Human experience -- experiments with gallium 72, as discussed in the section titled "General Benefits of Radioisotope Research", were conducted at Oak Ridge Institute of Nuclear Studies in the early 1950s. The experiments used gallium 72 because of its short half-life, 14.3 hours.

Now one thing I'd like to point out at this juncture, many medical radioisotopes have extremely short -- or short half-lives. During our OCAS recommendation interviews, on two occasions, we were told there was no need for internal monitoring because when my father went to ORNL in 1957, had he received any internal dose, it would have shown up at that time. And

I question the validity of that statement, given the half-lives of -- you know, in hours in some of these isotopes.

(Reading) The experiments used gallium 72 because of its short half-life, 14.3 hours, and because an earlier animal study indicated it concentrated in new bone, making it useful as a tumor marker and possibly for therapy.

It goes on and describes the experiments, and then I've highlighted another paragraph.

(Reading) A major difficulty was lack of knowledge about both the chemical toxicity of stable -- that is non-radioactive gallium -- and radiation toxicity of gallium 72.

Calculations in small animal studies indicated that dosimetry techniques used for other radioisotopes would be of little value.

I find that an important statement regarding conditions at the time. This was a research facility. It implies what it implies. They were doing things at Oak Ridge Institute for Nuclear Studies to find out the effects of some of these radionuclides. Therefore I question whether proper safety methods were in place, were they known to be in place.

And with that I reference a picture that's also posted on the ACHRE web site, managed by ORISE. And this is of an ORINS syringe shield, early 1950s. And I'd like to quote from this document. The problem -- and this is Dr. Marshall Brucer speaking. (Reading) The problem with this device is that its large size and weight led to poor, and occasionally dangerous, injections. Dr. Marshall Brucer, the acerbic head of the ORINS medical division, described this particular instrument as a three-bladed advertisement for health physics wrapped around a piece of junk.

Again, I'm not criticizing. I'm bringing up these facts to document something that was real, that occurred here. There was no monitoring records. I don't find it very reassuring when an HP tells me your father did nothing but take X-rays. It's a person who's younger than I am, has no idea what took place here. That's not the way to communicate this process. Let's do the research. If we need scientific justification for why an X-10 site profile is sufficient to perform a proper dose reconstruction when no monitoring records were

available for this time period, then let's document that. Let's get something scientific into the hands of people like me and my sister, who don't understand this process.

My father dedicated his life, his studies at the University of Tennessee, his work at Oak Ridge Institute for Nuclear Studies, and his subsequent 25 some-odd years at Oak Ridge National Laboratory. We at least owe him a proper dose reconstruction.

DR. ZIEMER: Thank you very much. Gary Faster -- Gary?

MR. FOSTER: That's Gary Foster.

DR. ZIEMER: Foster, okay.

MR. FOSTER: It's all right. I've been called a lot worse.

DR. ZIEMER: Well, I -- it's just my -- my reading isn't so good. I was just reading too fast.

MR. FOSTER: I'm speaking in behalf of my father, who worked at Y-12 for 35 years, from 1954 to 1989. My dad is currently in dose reconstruction for both lymphoma and bladder cancer, and he's not in the appeal process yet because NIOSH can't seem to get the facts

correct on his dose reconstruction. Each time it comes back for him to sign this OCAS-1 form, we can't sign it because -- or he can't sign it because it's -- the building numbers are not correct, the dates are not correct, and I think we're finding that out here from -- from several of the other people. They're having difficulty getting the NIOSH dose reconstruction to accept further information as fact and things like that.

And basically we are the people who actually know what we worked with at Y-12. We know what buildings we worked in, we know what areas we worked in. And I am a current employee at Y-12, I'm a stationary engineer. I worked all over the plant there in many of the areas in question. You know, I -- I can picture them in my mind. You walk across the -- walk across the hall in some of these buildings and you've got a different process -- or at least you did when we were in full production. And it's really difficult, especially in this day and time, because of the secrecy issues and things like that, the classification issues, for my dad to actually present really good information

to these dose reconstructionists because he -- he doesn't know what he can say to these people, and he knows that they don't know, you know, what -- what we were exposed to at Y-12. We have a really good -- you know, a pretty good idea of what we were exposed to, and the Y-12 site profile is not -- not accurate, by any means, as to buildings and -- and what the -- what the radiological hazards are in those buildings. It's -- in fact, it doesn't look familiar to me at all. I mean I can see one little process in each one of the buildings, and that's -- that's all I recognize. And my dad was a lab technician in the metallurgical lab for most of his career there, and he didn't do anything like what they did in the buildings that -- that they have him down as working in. He worked with all the radionuclides and did destructive and non-destructive testing on them, out in the wide open in his street clothes. And it's -- it's just evident to me that -- that -- I -- I just don't see how you can do an accurate dose reconstruction process. Like I said, NIOSH did not cap-- the dose reconstruction process did not capture nearly

all the buildings at Y-12 where my dad worked. And when my dad hired into Y-12 in 1954, he worked in a very contaminated -- in the very contaminated foundries at Y-12 -- and I'm not going to say where they were. He then moved to the rolling mill, another highly contaminated area, and then he moved to the salvage yard where he handled all the salvage equipment that was highly contaminated. And none of that appears to be captured in the dose reconstruction. We keep trying to get it across to them, but we can't seem to get across to them.

He then moved to the plant lab where he handled all the samples of many of the radionuclides at, you know, Y-12. He also handled samples from X-10 and K-25, so handles samples from all the plants.

And then he went the met labs, as I mentioned a minute ago, where destructive and non-destructive testing was performed, and was exposed to everything Y-12 produced, nearly. And yet his dose reconstruction keeps coming back that -- that he's not -- doesn't meet the 50 percent or whatev-- you know, whatever it

is.
He had a -- with his lymphoma, he was diagnosed first in 2002, I believe. And when the dose reconstruction was completed on it, it took it about two years to be completed, and they came back that his whole body dose was 36.something rems. Well, about the same week he was diagnosed with bladder cancer and so we called NIOSH up and said hey, wait a minute, he's got another cancer here. They said okay, we got to go back and redo this. They went back and redid it and gave him another -- a second dose reconstruction, and it only took three months to do it. And what they did, they took 36 and divided it in half, 18 to the lymphatic system and 18 to the bladder. It doesn't sound too scientific to me. I mean I -- I have no idea what the scientific principles are here in dose reconstruction. I've learned a lot today, I believe, but that just doesn't sound too scientific to me, that you just divide it in half and assign half of it to -- to the lymphatic system and half of it to the bladder. One other thing is that I don't see how -- why they can do an accurate dose reconstruction is

that at Y-12, during his last year there before he retired in 1989, he had a body count, a full body count, and they found -- it came back as 105 micrograms body burden in that body count. Now I may -- I may be mis-stating that, but it's 105 micrograms of U-235. When it got to his supervision, health physics determined that that couldn't be U-235, even though he was working with enriched uranium. It had to be cesium 137 because he ate garden vegetables and deer meat. And that is -- that is what is on his body count report, and they closed it out. They said no problem because it's cesium 137 because he ate garden vegetables and deer meat. And that's the type of stuff -- that's the type of data that's being entered into some of these dose reconstructions, and that's why people are upset is because they know what they did out there. They know what they worked with. But NIOSH cannot seem to capture that in their dose reconstructions, so -- and I appreciate you letting me get up here and spout off, so...

DR. ZIEMER: Thank you.

MR. FOSTER: Thank you.

DR. ZIEMER: All right. Next we have Forrest

Johnson. Forrest?

MR. JOHNSON: I'm not a public speaker, but there's two or three things I want to bring to the attention of the Board.

First, I went to work at Y-12 in June of '50. On my rejection where I filed, they said that I had a film badge. Well, the film badges didn't come out till '57, the way I remember it. 'Course I'm probably the oldest man in this room. In fact, I couldn't buy it when I got that statement. Then I got -- tried to get my records from Amy (unintelligible) or whatever her name is. Couldn't get no records.

Last year I decided I'd find out what Jimmy Duncan could do, so I went to Jimmy Duncan's office and his office manager, Jennifer -- was here a while, I don't know if she's still here or not -- so she -- they couldn't get them to start with. Finally I got a record from the health department where I had -- I think it was seven or eight splinters in my finger. Well, I never -- I never thought of a uranium chip of being -- or a piece of being a splinter. Only splinter I remember having while I was out there was when I was building my house, and I

did get a oak splinter in my finger when I was laying my hardwood floors.

So another thing they said in there, everything was hypothetical. Now I don't buy hypothetical for nothing. Just like the first atomic bomb. They said it killed -- hypothetically, it killed 70,000. Then they said hypothetically, it killed another 70,000 within five years. Well, if they -- one flash will kill 70,000 people within five years, you can't tell me working uranium 235, 238 and all that doesn't add up to about the same thing. That's the way I think. I'll make it short and sweet and thank you so much for your time. And I know you fellers are getting tired of sitting.

DR. ZIEMER: Thank you. With that I'm going to introduce Kenny Cook, who was first on the list, and I'm getting tired of sitting, Kenny, but I'll be back before you're finished.

You can just go ahead.

MR. COOK: All right. Good afternoon. Thank you for allowing me to speak here today. I want to welcome our visitors to Oak Ridge on behalf of the Atomic Trade and Labor Council. The Atomic Trade and Labor Council represents

approximately 2,100 (unintelligible) workers at both the Y-12 national security complex and Oak Ridge National Laboratory. The ATLC has been the negotiating body at the two sites since September of 1946. That's significant, in that the special cohort status we are talking about today is from 1947 to 1957. That allows us to give a somewhat historical view of the working conditions at Y-12 and also at ORNL, or X-10 as it was known then.

First we must understand that Oak Ridge was known as the secret city. The work done here was not -- never to be discussed with outsiders, or even coworkers, under penalty of prosecution. It's important to understand that outsiders included spouses and family members. Workers were told to talk to no one about what they did on the job. The spouses we have talked to have told us time after time, they never told us what they did at the plants. That in itself is very important when NIOSH uses the testimony of spouses to determine incidents these former workers were involved in or their work history.

The city of Oak Ridge opened its doors to the

public in 1949. The city of Oak Ridge was opened, but Y-12 and X-10 remained a mystery, even to those working there. The type of work being done, the materials being used -- including radioactive materials -- we new and unheard of to most people back then. It was not a question of how to protect these workers, but one of do they need even protection -- do they even need protecting.

I can -- I can't tell you how many times in my career I've heard the words "Don't worry, this stuff won't hurt you." Remember, it wasn't until 1970 that OSHA came here to -- came to be, so there was nothing driving the protection of workers at that time. And even then it did not apply to the federal sites here in Oak Ridge where dosimetry's required, where radiation work permit's required. Dosimeters were crude and unreliable, if they were used at all, and RWPs were unheard of. Exposures that were accepted as everyday business would be occurrences today.

In today's DOE world we all have stop-work authority. If we don't believe a job is safe, we are told to speak up and stop the job.

Imagine for yourself what the working conditions were back then, or for that matter, the recent past. The war had just ended and jobs were scarce. If you were fortunate to have a good job in Oak Ridge, you sure wouldn't do anything to jeopardize it. There was an attitude of do your job and don't ask questions. If you don't want to do the work, we'll get someone else to do it.

As a representative of workers at both Y-12 and ORNL, I can't tell you that attitude is not comple-- that attitude is not completely gone even today. Health and safety took a back seat to getting the job done. Those workers had exposures that were never documented. We know this, and it can't be ignored.

So where does this leave us today? I know that NIOSH is trying to do dose reconstruction. I don't envy you on that task. But let me ask you, how do you reconstruct doses that were never recorded? How do you assign doses for a career when the work history is missing or incomplete? The answer is, you can't. That is why we need a special cohort status. I understand that NIOSH is reconstructing doses

and erring on the employee's side, but it is this really -- but is this really enough? Can we honestly say these assignment dose -- these assigned doses are fair when we suspect how much missing information is not being taken into consideration?

These sites were secret then, more so than today. More importantly, secret with no meaningful oversight. If something happened that wasn't meant to be known, it simply wasn't documented. As I'm sure you heard before, if it's not documented, it never happened. And remember, we're not just talking about incidents. We're talking about everyday working conditions.

Think about that, everyday working conditions. These working conditions made people sick, made them sick when they didn't know why. What a terrible thing for them and their families to go through. These men and women gave their lives, and some are still giving their life to this country by the work they did here in Oak Ridge.

Is a special cohort status needed for Y-12 from 1947 to 1957? Absolutely. But ladies and

gentlemen, another question needs to be asked here today. Should the broader special cohort status be expanded to cover both Y-12 and X-10, as it does for K-25? Without question. The hazards in the workplace at Y-12 and X-10 were just as dangerous, and in some instances more so.

We talk to the workers, and the documentation is missing on exposure at Y-12 and ORNL. When we did the risk assessment for our medical screening program, we talked to these past workers and heard the stories of their working conditions, they exposures with no dosimetry, nothing to document the job ever took place. I urge you to look at that document, if you haven't already.

Speaking for the workers at Y-12 and ORNL, the pain and suffering of these people was and is just as severe, and the lives of these brave workers just as important as any other in Oak Ridge. Thank you.

DR. ZIEMER: Thank you very much, Kenny. I'm going to call now on Elisa Robinson. I think she's out in the hall waiting -- oh, here she is, she came on in. Okay.

MS. ROBINSON: Good afternoon, and my name is Eliza Robinson, and I worked at K-25 for 18 years. I worked in the mailroom and drove the taxi. And when I went in one of the buildings, which was 1420, I almost passed out. I got where I couldn't breathe. Dr. Fortney* was the head doctor out at K-25. They carried me to medical in there to Oak Ridge Hospital and I stayed there almost two weeks. So when I came out, they sent me home for a week. I couldn't breathe and my throat was sore, and I thought I just had a sore throat. So they told me that was thyroid, the doctor that I went to here in Oak Ridge. So then they kept saying well, you know, you can't go to another doctor. And I said yes, I can, because I'm free. So I went to another doctor and this is my problem now. So finally they took my thyroids out, and I'm still having problems. I get where I can't breathe and I can't talk. It was me sitting here coughing and going on when I get to talking. And this is my problem what I'm having now. And you see, I can't walk without this stick because I cannot pick this leg up without picking it up like this. And I went

back out there and I been going to the union hall taking the X-rays, and they said that I had a -- still have that spot on my lung. And I was in Oak Ridge Hospital two weeks ago and I was in 'tensive care for five days. I got where I couldn't talk and breathe. And I was talking and breathing and doing everything I wanted to when I went out to K-25, because I worked for the school system. I drove the school bus.

But the good thing about it, it's one man that always have the last say-so and that's Jesus Christ, and I want to thank you.

DR. ZIEMER: Thank you, Eliza. Jump back now, did Robert Pidgeon come in yet, Robert Pidgeon?

(No responses)

Okay, let's go on -- Bob Warren?

MR. WARREN: Hi, I'm Bob Warren, a lawyer from Black Mountain, North Carolina. I wanted to bring to your attention -- at a previous meeting, one of your meetings and I don't have which one it was, but Advisory Board members were asking questions of the NIOSH representative at that point about using the data generated by the applicants in the dose

reconstruction process. And I think the NIOSH representative said -- his response was that when the collected data contained sufficient numbers, that NIOSH expected to factor that into the dose reconstruction process at -- because of the different numbers of the cancers at each site. And my question is is what is the status of using the number of cancers for each site as some part of the dose reconstruction process? I -- it seems like it would be important to identify if stomach cancers are in excess at the Y-12 site of what would be the expected level of stomach cancers in the general population. If it's greater, just from voluntary filing of claims, then -- and the dose reconstruction doesn't show a 50 percent probability -- it seems like NIOSH would then say what's wrong, why do -- what's happening with our dose reconstruction and why couldn't we add things on there.

I think it wouldn't be that difficult to get a printout of cancers -- each cancer at each site, and then you could very quickly decide whether or not the expected number of level -- expected level of cancer at that site was

exceeded or not.

The other thing I wanted to draw to the Board's attention if you could, maybe NIOSH needs some kind of triage process. I had a 93-year-old client that worked at K-25 who died last week, and we had a doctor submit a letter saying we'd like you to process his application, expedite it, and that did allow for an immediate telephone interview. But if NIOSH could look at a situation where the workers and their spouses might be able to receive the awards before they die, if they are in a situation where there is -- their health or their age is meaning that. And it would -- it seems like it wouldn't be -- it wouldn't be the same process of minimizing and maximizing process you talked about earlier. This would just be a situation -- in this case, my client had numerous skin cancers and -- in addition to other cancers, but it would have been a situation where NIOSH could have looked at that and said okay, it's probably going to be and we'll take him out of line and do that. But there doesn't seem to be any process other than getting the telephone interview, and that was important. But if

y'all could try to work and see if there would be some way to expedite this process because as the population of workers are getting older, you're going to have more and more people dying before they get word, so -- thank you.

DR. ZIEMER: Thank you. Let me see if Gertrude Timmons has come in. Did Gertrude come back?

(No responses)

Okay. Beulah Lindsey? Looks like Lindsey. Beulah?

MS. LINDSEY: It is.

DR. ZIEMER: Yeah.

MR. LINDSEY: I'm Alvin Lindsey, I'm next on the list. Could I just go at --

DR. ZIEMER: Yes, sure, go --

MR. LINDSEY: -- at the same time and try to --

DR. ZIEMER: -- go ahead.

MS. LINDSEY: He happens to be my brother.

DR. ZIEMER: Okay.

MR. LINDSEY: See the resemblance, I guess.

MS. LINDSEY: You know when I came here I actually thought that our situation was a bit unique, but in listening to everyone else, I see that we're all in the same boat here. It seems like if someone doesn't really listen to

us, we're going down like the Titanic. It's obvious to me from what I have heard so far that this system is indeed flawed, and I am not certain -- I hope and pray that it's not by design. We know for a fact, my brother and I and my other -- the other siblings. We know that our father died of exposure to radiation at the Savannah River Plant. There's no doubt in my mind about that. I was indeed, as we all were, the -- I have six other siblings who are -- who are still living. There were ten of us. My mother was widowed at the age of 39. My father died at the age of 53, having worked at the Savannah River Plant for about 12 years. We know that he died as a result of radiation -- exposure to radiation and working at that plant. We know that from the people we've talked with who worked there, and I know that from hearing that as a child. I was ten years old when he passed, and -- and I'm just -- I was just amazed when we got the report back and it said that there was less than 50 percent chance that -- that my father's cancer was the result of the radiation that he received at the Savannah River Plant. We were all just in

shock.
I guess I live in a world that I think that people really just do what's right. But that doesn't always happen. So we have traveled here...
MR. LINDSEY: We traveled -- actually we -- oh, boy, two of us. We got the results on the report I think about three, four weeks ago. My mother passed in December a year -- December 19th a year ago. We was letting it happen through my mother, and we -- we became involved as a result of her demise. And we got the results. As my sister said, we thought well, you know, the process is going to do. And also -- and it's going to work itself out. And also we was following procedures. And that's all well and good, you know.
But then, you know, we get the results and results were wrong. And so we get this letter. Her thing where -- where I'm getting on is the credibility and -- of -- of the procedures. Right? For example, you read this last thing that you sign off with after you get the result. (Reading) I am not aware of any additional information available to me that may

be relevant to NIOSH in completing a dose reconstruction.

Well -- and I offered some information. I offered something about the -- perhaps since he worked on the outside, he could have eaten berries, could have eaten food, could have fished in the pond or something like that around there. And I offered to the -- about the fact that, you know, my father commute -- it's like eight to 12 people over the period of time, that it was -- you know, that of the 12, that only one came out, kind of like the West Virginia mining thing. Right? And to me, that, you know, came out that all of them -- deceased now. Right? And for cancer, the same thing.

So it -- that information, they said well, we don't want it. Right? We don't need that, or you should have given it at the beginning, that's not what we want now. Right? And so I'm finding out (unintelligible) you read the report. Okay? And you guys really must be real smart 'cause I mean I read that report and you cannot -- after you get past that second page of that summary part, you cannot -- I

could not follow it. It takes an expert three times over in that particular field to be able to follow it. Right?

So I get here today. Right? And talking about people getting fair treatment, I get here today and I talk to Mr. Warren, and he was talking about cancers. Right? The whole thing about my father started in the stomach. Right? And so that wasn't too good, even though it went over to every other part, to the lungs, liver and all that kind of stuff. That's not good 'cause it started in the stomach, so that's not good. But I didn't even know about the -- he had several moles and skin lesions taken away from his skin, operations. Right? I didn't know about it until I got here today. How did I know what question to ask or the question to tell them on the beginning end if you are at the end?

I -- and one other thing, too, 'cause there's a lot of other things but I don't want -- they don't know about -- in -- in Savannah right now they're concerned with where people have taken waste out and dumping it in cardboard boxes and buried out in water and stuff and it's seeping

into the water system. They don't even know where they are. How are they going to know how my father was monitored, anybody else was monitored when you've got boxes and cans of -- of real hot stuff that's out there? So how are you going to expect to -- that those people anywhere, how are you going to expect for them to -- to -- to accurate monitor anyone there. And another thing, too, in terms of (unintelligible), I'm just getting into it. Right? But I'm going to get into it from here on out. I'm really going to get into it because we owe it to our father and I'm sure everyone else here does, too. How is it that other plants, your St. Louis or your Ohio plant -- Right? -- they have the same problem, but they get past. How do they get past and we don't get past. Is there something about this marjural (sic) that show that people in Tennessee or people in South Carolina, they are, you know, more docile and they're not going to raise cain and they're -- so therefore we can do it to them a little more than we do it up here to Ohio or St. Louis where this senator is on this committee and that senator

is not on that committee going to have to sign this appropriation bill and that kind of stuff? I think all of you know and your auditors have shown that this thing cannot adequately accurately be reconstructed. And so I think we're just playing with some games like around with that thing 'cause I think we all know in our mind that it cannot be accurately reconstructed. And I know you can't do everyone, but percentage-wise you're going to have a overwhelming amount of people that will not get service about the marginal, and I appreciate the (unintelligible) and -- and that you put up. Right? Those PowerPoint presentations and all like that, the pies, the graphs and stuff like that. But how is that in terms of -- one thing is -- is it actuality putting it in reality is another thing. And the missing information, I don't think -- and I've heard some people -- I mean these people, they came prepared (unintelligible) some other line's going to come up to that, they are prepared. I -- we wasn't even prepared. We just came up here cold, just to -- just to holler or vent or whatever you want to do it

and just, you know, because we have to because that is -- it's our parents, it's our life and we just cannot stand by. But I do think that when y'all get behind y'all's -- I mean y'all's closed meetings that you be honest with this thing and -- and just tell it. You know, really, that -- I don't think it can be done. It cannot be done with all these people up here saying this. Something is wrong here, and I think you know that. And if you don't do something, if you accept this module as the way it is, you're going to -- you -- I mean really, just the number here shows, and just -- and the people that can't come, the lady that just left. You know, the people that can't come.

MS. LINDSEY: So I'd just like to say in closing that I -- I'm still of the -- the belief that, you know, we are bound to do what is right. Our -- our purpose -- I don't think that any of us are here because it's about the money. It certainly isn't our reason for being here. And from listening and feeling the pulse of the people here, that isn't even what it's about. We are educated, fortunately. My mother reared us in a way that we could still

become educated. We have doctors in the families, post -- people with postgraduate degrees. I am here not because of -- what is $150,000? I mean in the first place it's a darned insult, so it's not -- it's not even about the money. It's about we lost people who gave their lives, who were exposed to something without their knowing, and we have a right, and it's just -- it's just not right. So we're asking -- I know you say that you're not in a position, that you're simply to kind of hear us or you can't do anything. But I do not believe that you're not in a position. You're not in the position that you're in, you cannot hold a position without being able to make an impact. I do not believe that. It has to start from here. That is the reason we traveled from Atlanta. That is the reason that we're going to continue to do whatever it takes. I don't give a dog what it takes, even if it means writing George Bush. I don't care what it takes, because it isn't right. Our father died trying to make a better life for us. He was a teacher. He didn't have to go to the bomb plant. He did that so that he could make a

better life for us and provide. He was educated. So I'm saying I can't -- we just can't allow -- you cannot allow -- you can't sit back and just listen. You can't, because look at what was here, and some of these people here, they have already lost their loved ones, just as we have. And you owe it to them and their families, as you owe it to us. Thank you.

DR. ZIEMER: Thank you, Beulah and Alvin, particularly for driving all that way to present to us your story. We -- we hope this Board does have an impact. We thank you for your challenge.

Okay, let's -- let me go back a moment. Gertrude Timmons, did Gertrude come in?

(No responses)

Okay. Did Robert Pidgeon come in?

(No responses)

Glenn -- is it an R, Glenn Real? Is there -- Glenn anybody?

UNIDENTIFIED: Probably Glenn Bell?

DR. ZIEMER: Dell, that -- it could be Dell.

MR. BELL: I didn't know my writing was that bad, sorry.

DR. ZIEMER: Okay, close enough.

MR. BELL: Thanks for that introduction. I'm Glenn Bell. I've been a machinist at Y-12 since 1968. I'm also the chairman of Y-12's Chronic Beryllium Disease Support Group. I'm in favor of expanding Y-12's SE status for several reasons. I'm sure you're aware of -- that documentation wasn't there in a lot of cases. Records were -- I've heard incomplete, inconsistent or in the trash, as I've heard it called before.

Over my years at Y-12 I have been in almost every building out there that a machinist or inspector could be assigned to, and I can tell you that job title or even the department or building assignment may not reflect the exposures because you could be assigned to one department and be on loan or work overtime in another department that may be more or less contaminated than the one that you're normally assigned to.

In December of '03 I submitted two documents to NIOSH that are still listed -- were listed this morning as being under review for public release, even though I had the proper release

papers with those at the time I submitted those. It should have been just a matter of verifying that for public release. One was a 1990 health physics report from the building that I was assigned to at the time. The other was an SAIC report from 1998 of Y-12 contamination survey and a pretty good listing of maps.

The SAIC report, that's Science Applications International Corporation, it was prepared for the Oak Ridge Reservation End-use Working Group, and it's 50 or 60 pages of maps, which were really well done. It showed outside contamination of the soil, rooftops. It gave some geological cross-sections, showed pathways of exposure. It was pretty -- pretty well-written, I thought.

The other was a health physics survey for uranium surface contamination, as I said, in the building I was assigned to at the time in 1990. And I'm not very well versed on health physics, but when I see at the bottom of a page that the maximum is supposed to be 5,000 disintegrations per minute, anything above that is considered contaminated, and I'm seeing a

report here that has 800,000, 255,000, 2,400,000, 6,600,000 counts, that's contaminated. And you know, I haven't had an answer as to whether these documents are indeed being used in Y-12 site profile. I don't know. I've written at least on three occasions to try to get an update, and the only answer I've received is that the documents are still under review. So I don't know, based on what I've been told, are these documents being used in the site profile or are they not, and how many more documents like these are out there that we just haven't turned up. This health physics report was prepared in 1990 and we only found it in the -- about Thanksgiving of '03.

If this data is inconsistent or incomplete, how can a credible dose reconstruction be done? That's why I think that, due to the lack of information and all the documents that -- like these that may be out there, that I think the SEC status should be extended to Y-12 and to X-10, regardless of the years. You know, not -- not limit it to the -- to the early years. And I thank you for your time.

DR. ZIEMER: And Glenn, did you say you have

made those documents available to NIOSH? I missed --

MR. BELL: (Off microphone) Yes, (unintelligible).

DR. ZIEMER: Do we have those documents?

MR. BELL: Yes, they were sent by -- by certified mail in December of '03, and I did get a return receipt that they had been received.

DR. ZIEMER: Okay.

MR. BELL: But -- and it's posted on the web site that as -- that they have been received and are under review -- currently under review.

DR. ZIEMER: Okay. Thank you.

MR. BELL: Thank you.

DR. ZIEMER: I want to determine -- we were told that there was a couple of people that wanted to comment publicly from Colorado by phone. Do we -- has anything come in?

(Pause)

Okay, apparently not. Then I have Richard Miller from the Government Accountability Project. Richard's back here.

MR. MILLER: Well, good evening. My name's Richard Miller. I work for the Government

Accountability Project. I've met a number of you at previous Board meetings in hotel rooms that looked a lot like this. Good evening, everyone.

I would like to touch on the Special Exposure Cohort proceedings that you're dealing with. There are really five separate areas that seem to be in play involving special cohorts that the Board has under consideration, or should. The first, which I see on the agenda, is the Special Exposure Cohort interim final rule, for which comments are due by February 21st of 2006. And I don't know whether the Board intends to file comments on it, but I'm going to offer a couple of thoughts from my read of the rule that might inspire you all to bring it under at least discussion, if you choose to file comments. I know the Board has been very diligent in filing lots of comments on the SEC, as well as the dose reconstruction and this probability of causation rule.

The second area has to do with the policy issues from Dr. Melius's presentation today.

The third issue has to do with whether and how the Sanford Cohen & Associates procedures,

which were I think sent out sometime in December, dealing with how they will review Special Exposure Cohort petitions if they are so tasked to do so. And directly related to that would be the question of whether the Board intends at this meeting to assign any tasks for any SECs that are in the hopper for them to get started on, given that the task order I guess was finally issued in August of 2005, some one year after the Board had asked for it.

And then the last issue really has to do with sort of a procedural question that I would just like to beg the lawyers to think about a little bit, which is we have Special Exposure Cohort proceedings going forward, and here in Oak Ridge there's an SEC pending. I don't know if the petitioners are here, or even who the petitioners are. We're told the petitioners are -- their identity's protected under the Privacy Act, but yet they represent a whole class of hundreds or more of individuals. And the question really becomes can they be an adequate representative for a whole class if they're operating just in anonymity, without communication with the balance of the class or

members of it.
Let me just quickly get to the interim final rule. The Defense Authorization Act for FY 2005 required that within 180 days from the date that an SEC petition is submitted to NIOSH, NIOSH should make a recommendation on such petition to the Advisory Board, including all supporting documentation. Now I had a chance to look at the interim final rule, and in section 83.5 and 83.11 never once is the 180 days even mentioned. It's in the preamble, but not in the text of the rule. Hmm.
But the preamble says that the reason for this rule is to deal with the new deadline set forth in the Defense Authorization Act, and the rule does specify the 30-day deadline that the Secretary of Health and Human Services has to receive a recommendation from the Board and then take action, either to approve or deny.
So I guess the question is why is the 30-day time frame in the rule, but the 180-day requirement for making this recommendation is not?
The other concern we have is -- is whether the definitions that are currently in place for

what a petition is have been stretched, as a practical matter, and ultimately result in NIOSH having a year or more to deliberate on SEC petitions. I only look at Rocky Flats where the petition was file in February, and it was one of the most detailed petitions I'd ever seen. It was exhaustive, well-documented, tabbed and organized. And after several months of qualification process, then the petitioners received their qualification and now 180 days have passed and of course there's no petition before the Board.

So the question really is are there any consequences for missing the 180-day deadline, and should there be? Is that a statutory question, or should that be in the rule?

And I guess the other question that arises is what does it mean, as I've seen in the transcript and I think you, Dr. Ziemer, may have mentioned the concept of being frozen in time. You take the petition where it is, frozen in time. You take the data, frozen in time. This happened in Iowa, I think, that was -- was most profoundly that policy sure came to the fore, and I believe Dr. Melius in his

presentation today talked about a petition being frozen in time.

Well, I guess the question is, how long do you let this deadline creep before something's not frozen in time, it's sort of sliding along, kind of like at a glacial pace?

Now NIOSH created a definition for the term "petition" in this rule. When you submit a petition now, according to this rule, it's actually deemed a submission. And it doesn't become a petition until it's qualified. But there's no deadline on how long it takes to get qualified. And what the Defense Authorization Act actually says, if you look at the text, it says that the qualification process has to take place within the first 30 days of the 180 days. It doesn't say you can do it outside. And let me just read you very briefly what it says.

It says -- and this is in House Report 108-767, it says (Reading) During the 180-day period when NIOSH is preparing the petition for review by the Advisory Board, NIOSH should identify all the deficiencies in the petition within the first 30 days. So the 30 days fits within the 180-day window, not outside the 180-day window.

And there's not even a 30-day deadline for qualifying a petition.

The other concern was that NIOSH cut the time for a petitioner to appeal a rejection for the qualification of their petition to a mere seven days, seven days to put your appeal together. Now NIOSH says that the reason that they're doing this is -- is because it would give them -- it would chew up less of the 180-day time period. But if you're not qualifying a petition, the 180-day clock's not going to run anyhow under this rule. So there seem to be some points of confusion here and inconsistency.

And then finally the question which was also brought up by another commenter today, which was the term "recommendation", what is a recommendation. Is a recommendation a yes or no? Is it part of an SEC evaluation report, and then when the report comes to the Board y'all have a yes or a no? Or does a recommendation mean we need more time?

Now I happened to listen in to that conference call in early January, and what we learned was a recommendation could include a request for

more time. The example given was Y-12 here in Tennessee, that -- well, we've evaluated a part of the petition but we need more time for the rest of it so our recommendation is we need more time.

Well, I don't know that that's what Congress intended by the word "recommendation". Recommendation meant yea or nay. So it seems to me the rule ought to have a definition of a recommendation. And I guess if all of this is about getting more time, then let's be up front.

Now the preamble to the rule says the purpose of all these definitions is to, quote, enable NIOSH to work within the 180-day statute. It doesn't say to conform. And so it's revealing to use the word "enable" versus "conform", and I don't know quite exactly what's at issue here, but I would encourage you all to think about whether the Board should look carefully at this rule, since it's going to have to live with it as part of its guidelines.

I went through the guidelines that Dr. Melius laid out, and I just had two or three brief questions, one of which is when can data from

another facility be used to establish dose? Now this came up obviously in the Iowa special cohort with whether or not you could use Pantex tritium data, or the neutron/photon ratios from -- from Pantex. But it seems to me that when you look at the special cohort procedures that NIOSH has published, they say, you know, it doesn't say how much data we can use from another facility. It doesn't say how little or how much, and so as long as there's at least a scintilla, we're conforming with the legal requirement to use data from the source of the site that's at issue, 'cause the statute says you have to use data from the site. It just doesn't say how much of that data you have to use.

And so one of the questions about whether you can bound the dose, whether you can do a special cohort or whether you should approve or deny one is whether there's other data out there you can use. And I would ask this question: Should you define the parameters in your SEC guidelines on when you can use data from another source?

I have some suggestions that should make it

fairly clear when you can and when you can't. It seems to me that if your conditions are fairly close to parallel -- I don't mean identical, but parallel and high degree of approximation, then perhaps you could use data from it, but it should cover the same time periods. It should be for the same processes. And -- but it shouldn't be for vastly different time periods and vastly different processes in an effort to try to come up with some kind of number you can throw at the wall.

The other question is, how little data can you get away with using from a specific site, and how much data can you borrow from another site and say it's feasible to estimate dose with sufficient accuracy?

The other thing I would just like to suggest is a process matter, and it deals with the SECs directly, which is should -- wouldn't it make sense if NIOSH just, right up front in the site profile, if it self-identified classes of workers that would readily qualify for inclusion in an SEC, that they would just communicate this to the Board, that they would just make this public? Now, you know, back --

over a year ago, almost 16 months ago, a task order was given to ORAU to precisely do that, to come up with a report. And Larry Elliott reported to this Board that they were working on a report of self-identified Special Exposure Cohorts. And it seems to me that report which was due December 1st, 2004 is at least 14 -- 13, 14 months overdue, and it would seem to me if that report's in hand in whatever shape it's in, it ought to be made public. People shouldn't be kept in the dark if there's SECs hanging in sort of the closet, so to speak, of NIOSH or ORAU.

The other question I guess I would pose is what about site profiles? What happens if you have an SEC petition and the -- there's holes in the site profile? What you find out is maybe you can bound the upper dose -- end of the dose, but the site profile needs a lot of surgery. In other words, the site profile needs a long way to go. How long do you allow the process to go on and all -- on and on and on and on and on till you plug all those holes? In other words, do you -- I guess, put another way, is that an open-ended process? And how do we deal

with this frozen-in-time problem that was laid out really well I think in the dialogue on November 17th, and the transcript I think commends itself well to that discussion. But again, the draft guidelines as presented today don't ask or answer that question, and it would be -- it would be helpful I think for you guys to deal with the prescriptively.

Finally, I'd just like to talk a little bit about the SC&A procedures. I mean I don't know if they're ready for prime time or not. I don't know whether the Board's going to take them up at this meeting. But one of the things that's really of concern to me is that, you know, site profile reviews are being used as sort of the proxy for SEC reviews, and it seems to me it would be very helpful if the SC&A procedures at least conditionally could be put in place so that you could then task them with a few sites to start getting going on SEC reviews. You know, I -- I have some suggestions on facilities that might benefit from an SEC review, but I'm sure you all know what the list is that's out there.

So those are my thoughts. I thank you for your

time.

DR. ZIEMER: Okay. Thank you, Richard, for a number of stimulating questions for the Board to consider. And we do have, incidentally -- on the agenda tomorrow we will be looking at those SC&A procedures that have -- that were referred to.

Let me check one more time. Do we have anyone on the phone?

(No responses)

Apparently not. I want to again give one more opportunity -- did Robert Pidgeon return?

(No responses)

Okay. Or Gertrude Timmons -- Timmer?

(No responses)

Okay. If not, that completes our public comment period. I thank all of you for participating, those who came long distances, those who live close by, we're pleased that you're here to share with us. If you have additional comments that you'd rather give to Board members privately, you're welcome to do that, as well.

Thank you. The Board will reconvene tomorrow morning. You're all welcome to join us at that

time.

(Whereupon, the meeting adjourned at 6:30 p.m.)

CERTIFICATE OF COURT REPORTER

STATE OF GEORGIA

COUNTY OF FULTON

I, Steven Ray Green, Certified Merit Court Reporter, do hereby certify that I reported the above and foregoing on the day of January 24, 2006; and it is a true and accurate transcript of the testimony captioned herein.

I further certify that I am neither kin nor counsel to any of the parties herein, nor have any interest in the cause named herein.

WITNESS my hand and official seal this the 7th day of March, 2006.

_____

STEVEN RAY GREEN, CCR

CERTIFIED MERIT COURT REPORTER

CERTIFICATE NUMBER: A-2102