

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-FIRST MEETING

ADVISORY BOARD ON
RADIATION AND WORKER HEALTH

DAY THREE

The verbatim transcript of the Meeting of the
Advisory Board on Radiation and Worker Health held
at the Chase Park Plaza Hotel, St. Louis, Missouri,
on July 7, 2005.

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P R O C E E D I N G S

(9:30 a.m.)

WELCOME AND OPENING COMMENTS

1
2
3 **DR. ZIEMER:** We're going to convene the full
4 Board at this time, please. Let me begin our
5 session this morning with the usual reminder
6 that, if you haven't done so, please register
7 your attendance in the registration book.
8 We also have later today a public comment
9 period and those members of the public who wish
10 to participate in the public comment period,
11 please sign up in the book there at the
12 registration desk.

13 One of the carryover items that we've not acted
14 on from our contractor's deliverables is task
15 three, which has to do with the review of
16 procedures. So we are going to have the formal
17 presentation on the task three review this
18 morning. Hans Behling from our contractor,
19 SC&A, will make that presentation. Hans, we'll
20 be pleased to hear from you now if you'll take
21 the podium.

SC&A TASK III/WORKBOOK ISSUES

22
23 **DR. BEHLING:** Good morning. My name is Hans
24 Behling. I'm with SC&A and I'm here to briefly
25 discuss task three, which is an overview of the

1 procedures and methods used by NIOSH to do dose
2 reconstruction. As you can see, the people who
3 were involved in this project were several
4 people, and we divided our -- our task three
5 among the different subject matters. I
6 personally looked at the procedures that deal
7 with external dosimetry and we had Joyce
8 Lipsztein look at internal dosimetry. Arjun,
9 that you've heard early this morning, and Kathy
10 DeMers were involved in reviewing procedures
11 that deal with the CATI interview procedures.
12 And also there were several procedures
13 involving quality assurance that were reviewed
14 by Steve Ostrow, and Kathy Behling looked at
15 documentation and records management.
16 And just to give you a brief overview of the
17 genesis of this project, under the energy
18 employee act and under 42 CFR Part 82 the
19 Advisory Board on Radiation and Worker Health
20 is mandated to conduct an independent review of
21 the methods and procedures used by NIOSH for
22 dose reconstruction. And of course as
23 contractors to the Board, we were asked to look
24 at these procedures.
25 In total NIOSH identified 33 procedures to us

1 for review. At least 33 procedures represent a
2 sizeable body of written text that encompasses
3 a wide array of complex subjects. Moreover,
4 some of these documents are very, very detailed
5 in defining how dose reconstructions should be
6 done. For instance, Implementation Guides 1
7 and Implementation Guide 2 are very critical
8 and provide a foundation for external and
9 internal dose reconstruction.

10 Also, among the 33 procedures that were
11 identified to us, some of them are somewhat
12 generic in nature. In other words, they
13 represent procedures that are to be used for
14 all DOE sites. On the other hand, there were
15 also several procedures, including OCAS-TIB 6
16 and 7 and OCAS-PER 1 and 2, that are highly
17 site-specific. These particular four
18 procedures are directive to the dose
19 reconstruction involving Savannah River Site
20 claims.

21 On the first slide you will see all of the
22 procedures that represent those produced by
23 NIOSH or OCAS, and there are a total of 13 and
24 they cover a wide range of spectrum from, as I
25 said, actual things that are directly involved

1 in dose reconstruction to things that are more
2 peripheral in dose reconstruction. Some of
3 them are also selective in particular areas.
4 For instance, CATI reports or CATI procedures
5 are driven by only a handful of procedures, and
6 some of the issues that they contain are
7 confined strictly to those procedures and not
8 to any of the other procedures. As I said, the
9 OCAS procedures are 13 in number and -- I'm
10 sorry.

11 The second half of the procedures are those
12 that were produced by ORAU, and there are a
13 total number of 20 of these procedures. All
14 but two of those procedures are generic.
15 Again, generic meaning that they apply
16 essentially to all the different sites, as well
17 as AWEs.

18 Not included, and this is very important for
19 you to understand in -- under task three for
20 our procedural methods review are TBDs. They
21 were re-- they are being reviewed under task
22 one, but using different criteria. So I will
23 remind you that our review of procedures
24 involving dose reconstruction do not include
25 TBDs and we'll come back to that a little

1 later.

2 Again, this is probably a busy slide, but if
3 you have the handout in front of you, the ORAU
4 procedure cover a wide range of issues. On top
5 are QA procedures, there are documentation and
6 records procedures. Again, the record
7 procedure for internal and external dosimetry
8 and CATI reports and others, so again, the
9 procedures have a wide range of topics that we
10 needed to address and therefore we had divided
11 our task group three people into various areas
12 for -- for review.

13 As contractors to the Advisory Board we were
14 first asked to develop a method by which we
15 would conduct this review, and so the task
16 three was broken into two phases. Phase one
17 was to divide (sic) a method by which we would
18 systematically review and standardize the
19 review process. And phase two was then
20 actually to conduct a review. Phase A -- that
21 is developing a protocol that would essentially
22 define for the Board how we were planning on
23 doing our review -- was -- that report was
24 finished on September, 2004, almost a year ago,
25 and was handed to the Advisory Board for review

1 and approval. The second phase, that is the
2 actual review of the NIOSH and ORAU procedures,
3 came in a report that was given to the Advisory
4 Board in January of this past (sic) year.
5 In reviewing the procedures and in drafting a
6 protocol, we realized that central to that
7 protocol would essentially have to address
8 technical issues. These are key, and it's
9 almost a given that we would have to look at
10 all of the procedures in terms of their
11 technical accuracy. And for that, NIOSH had
12 given us, under task three, a list of technical
13 issues that they needed for us to evaluate, and
14 there were a total of ten of these. And I
15 won't go through all of them, but I'll just
16 cite a few of them as a representative.
17 We needed to identify the technical basis for
18 performing internal and external dose
19 reconstruction. That is, critically review the
20 Implementation Guide 1 and 2. And we needed to
21 assess not only how to do the dose
22 reconstruction in terms of recorded dose, but
23 to identify how do we deal with missed doses,
24 or the uncertainty of doses. So these were key
25 technical issues that were part of our protocol

1 for -- for evaluation.

2 But in addition to these technical issues we
3 were clearly also asked to look at non-
4 technical issues. And these non-technical
5 issues are very well specified in both the Act
6 and the Federal regulations. And in reviewing
7 the Federal regulations and saying what do we
8 need to look at besides the technical issues,
9 certain key words kept coming out of the pages.
10 Things such as the dose reconstruction has to
11 be fair, it has to be consistent, it has to be
12 reasonable, it has to be claimant-favorable.
13 And over and over again the word "timeliness"
14 comes up.

15 For example, in Section 73.84 of the Act, the
16 statement -- the following statement is
17 presented. (Reading) One of the purposes of
18 the compensation program is to provide for a
19 timely compensation.

20 Section (e) of 42 CFR 82 in the final rule
21 states that an additional critical fact
22 affecting how doses are reconstructed is the
23 amount of time available. In compensation
24 programs a balance must be struck between
25 efficiency and precision, and that is a very

1 important element.

2 So according to these directives then, SC&A

3 evaluated all of these 33 procedures. And not

4 only in looking at, for instance, things as the

5 ICR bio-- the ICRP biokinetic models, the

6 accuracy of those conversion factors, how were

7 they developed, the (unintelligible) risk

8 coefficients, computer codes and all of the

9 science that went behind it, but in addition we

10 also had to address perhaps something that was

11 even more difficult and subjective in terms of

12 striking the proper balance between efficiency

13 and precision. And these are subjective

14 things. I will basically give you warning here

15 that many of our findings have a very

16 subjective element. They express in essence

17 our opinion as to whether or not something is

18 ambiguous or whether it's properly stated,

19 whether it's formatted properly. And -- and I

20 will fully admit to you that there's not always

21 consensus amongst even the group that's

22 represented, the task three group, as to what

23 was to be given as a score.

24 But in this slide we identified, as a result of

25 our directives, seven basic objectives as their

1 fin-- objective one basically, again, dealt
2 with the issue of timeliness. Objective two
3 was is there -- is the procedure written in a
4 way in which it will be used in infective (sic)
5 manner, in an efficient manner.
6 Objective three, the key issue is, is the
7 procedure, written as it stands, complete. In
8 other words, is it sufficient to allow the dose
9 reconstructor to do what he's expected to do
10 without having to consult with outside
11 documents. In other words, a procedure would
12 be very inefficient and perhaps missing if it
13 simply made reference to a host of other
14 documents that you needed to get in order to
15 fulfill the objective of that procedure.
16 Objective five addresses fairness and benefit
17 of doubt to the claimant. You've heard that
18 over and over again, whenever there is an issue
19 here that we cannot fully understand or we do
20 not have the necessary data, that we have to at
21 least be fair and give the benefit of doubt to
22 the claimant under those circumstances.
23 Objective number six has to deal with
24 uncertainty. We know very well that not
25 everything -- we don't live in a perfect world

1 where all dosimeters and all bioassay can be
2 taken at their face value. But oftentimes
3 there is a need to look at the limitation of
4 these assays and say what is the uncertainty
5 regarding a film or TLD dosimeter reading or a
6 bioassay. And clearly when you deal with
7 uncertainty, we have to understand the science
8 behind those -- those particular measurements,
9 whether it's a film badge or -- or a internal
10 bioassay or in vitro or vivo bioassay, et
11 cetera.

12 And lastly, the issue that I've already brought
13 out comes into play. That is where do we
14 strike the proper balance. And I'm sure you've
15 heard the discussion over the last three days
16 and -- and we realize oftentimes there are
17 opposing forces. We need more precision in
18 order to be sure that you're not going to
19 shortchange anybody in terms of reconstructing
20 dose. At the same time, time is of the
21 essence. We cannot spend an infinite amount of
22 time in order to get to the last decimal point
23 of accuracy. So we need to understand the
24 importance of striking that balance.

25 So for each of the seven objectives that you

1 see listed here, we decided to derive secondary
2 questions in the form of a checklist, and a
3 rating system by which we would then say is
4 this in essence a procedure that fully fulfills
5 the objectives that it's intended to do, or are
6 there pers-- portions of it that we feel may be
7 missing. And so we decided to aid the
8 evaluation of these procedures by means of a
9 checklist. And again this is a busy slide.
10 I'm not sure to what extent you can see from
11 the back, but on the very bottom you will see
12 the rating system. So under rating, in the
13 third column, we have a rating system of one
14 through five. And one represents a rating that
15 says no, it's -- it's not likely or this
16 completely misses the point or the word never.
17 In other words, in the first category of
18 objective number one, determine the degree to
19 which a procedure supports a process that is
20 expeditious and timely for dose reconstruction.
21 Under that heading we have five separate
22 secondary questions. Is the procedure written
23 in a style that is clear and unambiguous? In
24 other words, the dose reconstructor has to be
25 able to read this and say I know what I'm

1 supposed to do, and is it written clearly
2 enough for him to follow that procedure.
3 The second one, is the procedure written in a
4 manner that represents -- oh, presents the data
5 in a logical sequence? In other words, there
6 are a sequence of steps that need to be
7 followed. Is the procedure written where step
8 one truly is defined as step one and not as
9 step three where you end up, again, causing an
10 awful lot of confusion and loss of time.
11 And so forth and so forth. And so under
12 category one or objective one, determine the
13 degree to which the procedure supports a
14 process that is expeditious and timely for dose
15 reconstruction, we have a series of questions
16 that have to be answered after each of the
17 procedures was reviewed and given a rating that
18 says no, never -- meaning that it's very bad;
19 or it's perfect, it's a five; or in many cases
20 we found that many of these procedures, as I
21 already pointed out to you, are extremely
22 selective. In other words, they're site-
23 specific for Savannah River, or the procedure
24 deals strictly with the CATI interview so that
25 the other 30 procedures really do not have any

1 need to even address these questions.
2 Also, for instance, under heading two or
3 objective two, determine whether the procedure
4 provides adequate guidance to be efficient in
5 instance where a more detailed approach to dose
6 reconstruction would not affect the outcome.
7 For those of you who may not be familiar with
8 that question, it's really directed in terms of
9 the efficiency process. In other words, we
10 know that claims fall into one of three general
11 categories and we'll briefly explain those.
12 And under category one it's basically a process
13 by which we can easily eliminate a claim by
14 doing a partial dose reconstruction, and so
15 this particular section or question addresses
16 that. If you're going to do a -- an
17 abbreviated dose reconstruction, which we call
18 category one claims, is the procedure
19 sufficient to guide you in that direction and
20 saying, for efficiency purposes, do as
21 minimumly (sic) as you need to in order to say
22 yes, this guy has a claim by which the
23 probability of causation exceeds the 50 percent
24 value and you need to go no further. It's an
25 incomplete procedure.

1 And again, section 2.2, the claims with
2 suspected cumulative low doses, does the
3 procedure provide clear guidance in defining
4 worse-case assumption. These are the maximized
5 category, and we need to understand how to
6 maximize it, and there are -- many of the
7 procedures that I showed you, especially the
8 ORAU procedures, that are specifically geared
9 towards maximizing doses. Don't worry about
10 the uncertainty because uncertainty is a very
11 difficult element to define in some cases. And
12 so by maximizing doses we say it couldn't
13 possibly any bigger than this or higher than
14 this. We eliminate the time-consuming aspect
15 of identifying, for instance, the geometric
16 standard deviation or the standard deviation
17 which at times can be a very time-consuming
18 issue. So again, review objective two
19 addresses those particular comment -- classes
20 of -- of claims.
21 Objective three at the bottom here is, again,
22 pretty much confined to the CATI interview and
23 -- and we'll briefly discuss some of those
24 issues later on.
25 This is the second page of our review and it

1 addresses section -- review objective four,
2 five, six and seven, and I'll just briefly
3 mention it. Review objective four is the issue
4 of consistency, are we consistent so that a
5 claim that's being submitted from one DOE site
6 versus another are not treated significantly
7 different. We do recognize that there are
8 site-specific issues which certainly has --
9 have to be considered, but in general when we
10 have certain generic components of a claim,
11 each of the site should comply with a
12 standardized protocol so as to be fair to all
13 of the claimants.

14 Five is the issue of fairness give -- benefit
15 of doubt given to the claimant. And again, six
16 are the issues that -- questions that focus on
17 the concern about the uncertainty by which
18 certain dose reconstruction have to be
19 evaluated. And they're mostly category three.
20 When we talk about the need to be highly
21 definitive in our understanding of uncertainty,
22 that also may include the Monte Carlo analysis.
23 We're really dealing with category three
24 claims.

25 And lastly, again, are the issues of -- of the

1 balance between technical precision and process
2 efficiency.

3 For each of the ratings other than five, which
4 is a perfect score, and the NA which means it's
5 not applicable, you -- you see a column over
6 here called comments. And so our report, which
7 is a close to 300-page document, has -- for
8 each of the 33 procedures that we were asked to
9 review -- this particular checklist and the
10 rating. And in all cases other than in the
11 case-- rating number five, which is a perfect
12 score, or NA, we would submit comments. And
13 here -- this is not the section for actually
14 describing the comments. It only gives the
15 reader an understanding where those comments
16 will be found in the text. And so for that
17 reason we have a fairly lengthy document and it
18 is close to 300 pages in -- in full text. And
19 clearly it's a text that I cannot even hope to
20 summarize in the brief period that has been
21 allotted this morning to me.

22 So what I've done in order to try to at least
23 give you an overview is to -- I collated
24 comments in a checklist that makes use of this
25 one. And in a couple of minutes here I'm going

1 to show you what we modified.
2 Where you see, for instance, the rating one
3 through five, I have expanded it in order to
4 give you the actual numbers one through five,
5 as well as NA, and eliminated the comments, and
6 then collated all of the 33 procedures and said
7 how many of the 33 procedures have comments in
8 section 1.1 that would fall into one of those
9 categories. And let's go take a look at this
10 and we will simply look at the numbers.
11 As you can see -- and I hope, again, you can
12 see from the back -- in review objective one
13 there were five questions and question 1.1 says
14 (reading) Is the procedure written in a style
15 that's clear and unambiguous? As you can see,
16 there were no ratings of one, but of the 33
17 procedures there were four that had a two
18 rating, and a two rating is infrequently.
19 There were nine of the 33 procedures that had a
20 value of three, which is sometimes; and seven
21 that had a frequent -- had a rating of four,
22 which is very frequently or essentially always
23 -- near -- near perfect, and of the 33
24 procedures 13 had a five rating, meaning that
25 they were excellent procedures. And of course

1 there were some that had the NA, didn't really
2 apply here.

3 So for each of the 33 procedures we went
4 through the checklist and what you're seeing
5 here is a collation of numbers.

6 Let me go and I'll -- in addition to this I'm
7 also going to give you examples of each of
8 these categories because, like I said, I can't
9 go through all of them, time wouldn't permit
10 me. So I will first show you the summation
11 slide, and then I will give you some discrete
12 examples that fall into each of those
13 categories. So let me go to the next page.

14 And so this continues, our checklist continues
15 here, and it continues with question 3.2.3 and
16 again you see the different ratings. Again,
17 they probably don't mean anything, but one of
18 the things you will see, that for certain
19 review objectives you see an awful lot of NAs.
20 In other words, it simply didn't apply to that
21 procedure.

22 But what I did want to point out to you is the
23 very bottom row, which is now the total of the
24 -- our evaluation. What you see therefore is
25 in total. Of the 33 procedures that we

1 reviewed, seven -- there were seven ratings
2 that had the rating of one, meaning that they
3 were lacking significantly in clarity. Thirty-
4 seven had a rating of two; 87 of three, 55 of
5 four and 114 of five. In other words, that was
6 a perfect score. But the largest number of --
7 of ratings was the NA column of 525. So that
8 gives you essentially an overview of how these
9 33 procedures were evaluated.

10 So let me now go back to the actual ratings and
11 give you some examples. I mention again that
12 under review objective one, is the procedure
13 written in a style that's clear and
14 unambiguous. And for an example, I will give
15 you implementation guide one. I found
16 implementation guide to be extremely definitive
17 and technically reasonably sound. But I found
18 it to be extremely fragmented.

19 And what do I mean by fragmented. If you look
20 at the external dosimetry section you have a
21 discussion that involves photons, neutrons and
22 electrons. And for each of those three major
23 categories that are critical for external dose
24 reconstruction you had subsections in terms of
25 photons that involve real recorded dosimeter

1 data. You have a section on missing data and
2 uncertainty. But if I were doing a dose
3 reconstruction and I needed to consult that
4 particular document and I said I'm right now
5 dealing with photon exposures as measured by
6 film or TLD, I would have to go through a whole
7 series of cycles.

8 In other words, photons are discussed in terms
9 of the dosimeter data, and then comes in the
10 same section neutrons, which I'm not interested
11 in. And then comes electron. And so for me to
12 go from the recorded photon dose to the missing
13 photon dose, I'd have to cycle over -- on over
14 each of these three different categories, and
15 it's a very inefficient process.

16 And I was very -- almost -- you know, it was
17 ecstatic when I realized that my finding had
18 been corrected in ORAU Procedure PROC 6 where
19 they did exactly what I would have said, take
20 all of the three components of photon doses,
21 whether it's recorded dose, missing dose,
22 uncertainty, and put it into one package so
23 that when a person has to consult it, he
24 doesn't have to go through and cycle each and
25 each over. So this is, again, a subjective

1 issue. I just simply categorize this as the
2 procedure being fragmented. It may not require
3 any resolution other than the fact that it's
4 not written in an efficient style.
5 The second objective is (reading) Is the data
6 presented in a clear and logical way? And --
7 and again here I ran into -- and this is
8 consistent throughout all the procedures. I --
9 at times I was frustrated. I would read these
10 very complex procedures where they give you a
11 lot of history up front and they give you all
12 the kinds of data from previous studies, and it
13 almost reads like health physics 101 course,
14 and it only in the last page do you realize
15 that the guidance they want you to follow is
16 sequestered to the last page, or to an
17 attachment. And in the meantime, you know, I'm
18 looking at some of these re-- procedures and
19 I'm saying is this how I'm supposed to dose
20 reconstruct if I had to do a dose
21 reconstruction? And it turns out no, no,
22 you're just given an awful lot of information,
23 background information, and sometimes it's only
24 through -- at the end of the -- the procedure
25 in a -- in a single attachment that's two or

1 three pages do you actually get to understand
2 that this is the procedure you're supposed to
3 follow. In fact, one time I didn't even know
4 it existed. I thought I was done because I
5 looked at the end of the procedure and there's
6 the references and I said I must be done. And
7 then I just turned one more page and I said
8 well, here's now the procedure for me to
9 follow.

10 And I personally think this is a poor
11 efficiency because I would like to see the nuts
12 and bolts in the front saying this is what I
13 want you to do, and this are the steps, one
14 through ten, one through 20. And if you don't
15 have a full, comfortable feeling about what
16 these steps represent in terms of technical
17 merit, please consult appendix A, B, C and D to
18 verify, to -- to somehow or other give you that
19 warm and fuzzy feeling that what we're telling
20 you to do has technical merit.

21 As it turns out, just about every procedure
22 suffers from that problem in terms of the
23 reverse order. You get an awful lot of
24 historical background data and it's only in the
25 last page or two that you understand what

1 you're really supposed to do.
2 For technical -- for the review item 1.3, is
3 the procedure complete in terms of required
4 data, this was a critical issue, too. And I'll
5 give you an example. In some instances -- and
6 this procedure in particular suffers from
7 multiple elements of deficiency, including the
8 first and second one I just mentioned, and
9 that's the occupational medical exposure. You
10 get an awful lot of history about X-rays and
11 how they're produced and so forth, and then you
12 get an awful lot of information that says, you
13 know, it's important for us to really include
14 this in dose reconstruction. And
15 unfortunately, some of the data is not going to
16 be available to you in terms of dose because
17 when people had a occupational X-ray for the
18 chest, they would oftentimes just do it and --
19 and that's all you have in the record, this
20 person was exposed to a chest X-ray in 1957.
21 Okay. You don't have a clue what the doses
22 were to specific organs. And so the procedure
23 gives you a long list of how to do this. And
24 again, I was initially puzzled when I read this
25 and I said how am I supposed to do this, and it

1 tells you. You can do this from first
2 principles if you understand -- if you know the
3 kilovoltage potential of the tube, if you
4 understand the milliamperage, if you understand
5 the milliseconds of exposure, if you know the
6 distance between the source and the body or the
7 organ, you can reconstruct it. And I looked at
8 this -- is this efficient?

9 And then of course, again, there's appendix --
10 of -- an appendix that has a clear-cut series
11 of tables that says from '45 to '57 or whatever
12 it is, use these.

13 My gut feeling is it should have been up front
14 that says if you have any doubt as to how these
15 numbers were derived, please consult the
16 appendix and we'll explain it to you. So a lot
17 of information that I consider useless was
18 introduced, but only to demonstrate that we
19 know what we're talking about.

20 Let me go to issue number two here and that is
21 determine whether the procedure provides
22 adequate guidance to be efficient in instance
23 where a more detailed approach to dose
24 reconstruction would not affect the outcome.
25 That is, again, the efficiency process that

1 affects category one and two. And I'd say in
2 most instances these were fairly readily
3 discernible. They were very few instance where
4 we felt that there was anything missing, and --
5 and as you can see in the column over here
6 under 2.1 and 2, most of these became NAs
7 anyway.

8 The only thing that I sometimes had a problem
9 with in looking at this is the definition of
10 worst case, and I think we have two different
11 definitions of worst case. Some instances
12 worst case is really a maximized approach and
13 other times it's best estimate. Maximized
14 meaning that we don't want to deal with
15 uncertainty; just multiply by two and we'll
16 cover the issue and that's fine. In other
17 instance the worst case has also been used and
18 very sometimes difficult to discern under
19 conditions where we simply don't know.

20 For instance, under maximized, we do know but
21 we just don't want to go through the exercise
22 of -- of -- of finding out what the uncertainty
23 is, so efficiency -- for efficiency purpose we
24 will maximize and use worst case assumption.

25 In other instance we simply merely don't know

1 the answer, such as what is the solubility of
2 the material, and you're not maximizing you're
3 just giving the -- the benefit of doubt to the
4 claimant. And sometimes that was not necessary
5 always clear how to differentiate worst case
6 for maximized dose reconstruction versus, for
7 instance, where you really don't know and
8 applicable to best estimate approaches.
9 Let me give you examples of category three.
10 Again, these are the CATI procedures under 2.1
11 and 3.1 1, 2, 3. And again, you've already
12 heard earlier this -- from -- this morning from
13 Arjun, there were some problems here, and I
14 won't go through all of them, but the problems
15 center around the failure on the part of the
16 CATI interviewer to be necessary familiar with
17 the particular site in question. And it would
18 certainly be helpful if the CATI interviewer
19 had an understanding of the complexity of a
20 given site and then asked the directive
21 questions that would be potentially very
22 relevant to the response that you might solicit
23 from an interviewee.
24 The other issue that already was mentioned this
25 morning by Dr. Makhijani was the issue of bias,

1 and we realize that, for instance, there's a
2 distinct disadvantage when we interview a
3 survivor who frequently, as we heard yesterday
4 as part of the testimony on the part of one of
5 the people here who -- who gave his -- his
6 understanding of how the interview process went
7 along where all the answers are I don't know, I
8 don't know. And so the -- the -- there's a
9 distinct bias in the way of -- of the interview
10 process where we're not talking about the
11 claimant himself, but a survivor who simply
12 doesn't have the answer because in too many
13 instances the -- the secrecy surrounding these
14 facilities mandated that people did not talk
15 openly, including to family members.
16 Let me briefly go to category 3.2. These --
17 this particular category we had a bunch of
18 deficiencies, but I think they were all, by and
19 large, centered around a -- a single procedure
20 that is OCAS-PR-3, performing and reporting
21 dose reconstruction. To the best of my
22 knowledge when looking at that procedure, it's
23 a procedure that was written early on and,
24 quite frankly, I don't believe there's much use
25 to this procedure. At this point I've looked

1 at 38 dose reconstructions and none of them
2 have referenced this particular procedure. So
3 the bottom line is OCAS-PR-03 may be a limit--
4 of limited use and -- and therefore limited
5 concern at this point as part of our review.
6 Let me go to review objective number four.
7 Again, I don't want to spell -- spend too much
8 time here, but we didn't really see too many
9 inconsistencies among the procedures. There
10 were a few, but sometimes one of the problems I
11 had, when there were multiple procedures, is to
12 determine which procedure should I be using.
13 For instance, I think there are three different
14 procedures one could make use of in defining
15 the tritium exposure at Savannah River Site,
16 and they parallel each other to some extent but
17 they're not totally superimposable, and it was
18 always a difficult thing for me to say which
19 one should I really be using. And in an
20 instance where there are multiple protocols
21 that one can follow, especially when you talk
22 about complex-wide issues, the question of
23 hierarchy comes into play, which ones are
24 really the ones that have precedent over the
25 other procedures. So that was one of the

1 issues that involved category -- or -- or
2 review object-- number four.
3 Review objective five is the issue of fairness
4 and benefit of doubt. If I look at these
5 procedures, most of these procedures were
6 generic procedures. They are geared towards
7 maximizing doses and admittedly the maximized
8 doses are very, very claimant-favorable. They
9 tend to over-estimate, as is their charter, and
10 so we found very little to -- to be critical
11 of.
12 There were a couple of instance, however, when
13 I felt that a -- a bias was given to the
14 unmonitored workers, which may be inevitable,
15 but we -- I came to the conclusion that it be -
16 - it almost behooves you to be an unmonitored
17 worker because oftentimes he would get up --
18 end up with a much larger dose than any person
19 who had truly internal exposures that were in
20 the form of a urinalysis or in the form of a --
21 of a whole body count. And all of a sudden we
22 get all these assigned doses to the worker who
23 was not monitored. And even there there were
24 multiple options at times that says well, for
25 instance, if a person was monitored but there

1 was a period of time during which he is not
2 monitored, you could, for instance, use an
3 extrapolation/interpolation use and say well,
4 what was -- how much dose did he get before
5 this gap in information and how much did he get
6 afterwards and side of -- kind of interpolate a
7 little bit here and come up with what's
8 reasonable.

9 You could also choose coworker data, if you
10 wanted to, to fill in the gap. Or we could,
11 for instance, use the maximum recorded doses
12 for that particular facility during that time
13 frame. Or we could even default to
14 administrative dose limits or regulatory dose
15 limits, as I've seen in some cases. So again,
16 there were multiple options. Not all of them
17 were consistent. Some were claimant favorable
18 than others and at times it was difficult to
19 assess basically what is it that you should
20 really do, and there was a lot of subjective
21 selection here available to the dose
22 reconstructor in how he wanted to deal with
23 this.

24 Let me go on to item number six, which is the
25 issue of uncertainty. And as I've mentioned,

1 this is a very, very important issue, but not
2 necessary important when we talk about category
3 one or two -- certainly not category one,
4 because we don't even address uncertainty under
5 category one where we do minimized doses where
6 we say no, you're going to get exactly what the
7 dosimeter read, and in fact we may even shave
8 it. We're not going to address missed dose, et
9 cetera, et cetera. So uncertainty doesn't
10 address the issue of the category one claim.
11 It is marginally used in category two claims
12 where oftentimes uncertainty is swiped-- wiped
13 off the table by saying we'll multiply
14 everything by two, and that's a maximized dose
15 which then give you the 95th percentile value
16 that exempts you from uncertainty.
17 But clearly for the last and third case,
18 category three, where best estimates have to be
19 evaluated, uncertainty becomes a critical,
20 critical issue to be sure that we're not doing
21 anything that is less than -- than claimant-
22 favorable. And let me give you a couple of
23 examples of some of the problems here.
24 In looking at implementation guide one, there
25 is an uncertainty discussion that requires the

1 dose reconstructor, if you're doing best
2 estimate, to establish a sigma value or
3 standard deviation for film. And if -- I
4 looked at that. I said my God, for people who
5 were monitored by film in the early periods,
6 like in the '50s, they may have been given a
7 weekly film dosimeter that -- for which they
8 have to establish a sigma value. And then
9 through propagation of error for one year, do
10 that 52 times and collate it. And the
11 methodology that's described -- I mean I'm
12 scratching my head and saying I'm a reasonable
13 health physicist. I think I know what I'm
14 doing. I've been doing this for 30-some-odd
15 years and I have to say I wouldn't know how to
16 do this.

17 They tell you, for instance, that to -- there's
18 a formula in the -- in the implementation guide
19 that says if you expose in roentgens you must
20 have a sigma value that's defined as a
21 densitometer* reading uncertainty typically of
22 0.015 density unit. Well, that's a typical
23 value. Should I use it? Is there another
24 value that should be using? Part of that
25 equation also says that it's saturation density

1 of film and it's based on Dupont 502 film which
2 was commonly used, has a saturation density of
3 2.8. But what if in some other instances, as
4 we already know, other film was used? So --
5 and -- and to do this 52 times and then use a
6 propagation for one year? I sort of looked at
7 this and saying my God, this is not something
8 that anyone can easily do in an efficient
9 manner.

10 The worst is the TLD uncertainty where the --
11 the uncertainty is defined in terms of an air
12 kerma dose, and I'm not sure we even have that
13 kind of data. And there are questions here
14 that in the equation that is to be used there
15 is a sigma sub one, which is the standard
16 deviation of the total air kerma. I don't know
17 what that means and the standard deviation of
18 the no readings, I don't have a clue what those
19 numbers mean. Then it basically tells you that
20 for those sigma sub-N and sigma sub-Mu, which
21 are part of an equation, you should have that
22 data readily available from the -- for most
23 DOE-lab accredited programs. In other words,
24 call up the guy who was the DOE lab accreditor
25 (sic) and get these numbers in order for you to

1 do a sigma value.

2 I find these things very difficult and -- and
3 questionable in terms of their usefulness in
4 doing dose reconstruction. I think there is a
5 better way to doing this.

6 So again, the uncertainty issue needs to be
7 resolved and I think it may very well have
8 already been resolved because ORAUT-OTIB-12 may
9 address that issue.

10 Also crystal ball has been used. According to
11 some information that we got when we went to
12 Cincinnati about a month ago, we were shown
13 computer codes that do this for you. So again,
14 some of the criticism may simply fall by the
15 wayside. This -- these documents were drafted
16 early on and of course since that time much has
17 been done to rectify these problems. And I
18 will also tell you that -- I will jump ahead
19 and Kathy will probably verify this -- at -- to
20 date I've reviewed 38 dose reconstructions and
21 not one instance were of dose reconstructions
22 where recorded doses were part of the dose
23 reconstruction with anyone ever developed a
24 sigma value for the recorded dose. And it's
25 clearly an understandable issue. I didn't know

1 how to do this. And even if you did know, you
2 could spend weeks trying to chase down these
3 numbers. So some deficiencies that Kathy will
4 be talking to later on is clearly a reflection
5 of the difficulties that I've identified in
6 these procedures.

7 Let's go to lastly category seven, and that is,
8 again, the issue of does the procedure require
9 a level of detail that can reasonably accounted
10 for by the dose reconstructor. And I've
11 already mentioned to you a classic case of the
12 occupational medical dose where they tell you
13 up front well, you can reconstruct it if you
14 have the KDP, the MA, the milliseconds and the
15 distance, and of course we don't have that. If
16 you don't have the dose, you sure as -- not
17 going to have those values. So again, we
18 categorized some of these procedures in that
19 fashion saying this is -- this is a request
20 here that cannot be achieved. So we -- we
21 obviously took notice of that.

22 On -- on the issue of 7.2, does the procedure
23 avoid levels of detail that have only limited
24 significance in final dose estimate and its
25 POC, there were instances where I felt that we

1 went far beyond the call of duty and introduced
2 levels of detail that I think are suggestive of
3 a level of precision that really doesn't exist.
4 Again, in the case of some of the tables that
5 I've found in the occupational medical, we
6 found organ doses to the -- E to the minus
7 sixth rem. We're talking about a microrem. Is
8 this significant or should we even have these
9 numbers in here? I mean it's reasonable to say
10 it's less than one millirem and be done with
11 it. And so oftentimes some of these procedures
12 would essentially project a level of precision
13 that simply doesn't exist. It's a -- it's a
14 false sense of security here in assuming that
15 you know something that you in fact don't know.
16 Another example is the external exposure
17 geometry. We have in table 4.2 common exposure
18 geometry for various jobs and facilities, and
19 they give you uranium facility, reactor and
20 chemical separation facilities, and they have
21 by job category -- general labor, machinist,
22 supervisor, fuel handlers, reactor operators --
23 and they will tell you that if you have a -- an
24 exposure dose from a TLD you should consider
25 certain geometries -- isotopic, anterior,

1 posterior, rotational -- and in fractions. I -
2 - I'm reasonably certain these numbers have no
3 real scientific basis. Or if they do, they
4 probably don't apply to most of the
5 individuals. And the question is, is it really
6 necessary to get that level of detail? Not to
7 mention that some of the dose conversion
8 factors -- if you look at appendix B, I -- I --
9 I scratch my head. Appendix B offers you all
10 the DCFs after, of course, a lengthy discussion
11 on how they were derived. But among the four
12 categories of DCFs are DCFs that are defined in
13 terms of the ambient dose equivalent, and I
14 question if I've ever heard of anyone using
15 ambient dose equivalent for recording film or
16 TLD -- or air kerma doses, to my -- best of my
17 knowledge. All doses that have ever been used
18 for -- for monitoring personnel for external
19 exp-- (unintelligible) defined in the Roentgen
20 or in -- in HP-10 in shallow dose, but I've
21 never heard -- I -- I -- in fact, I had to look
22 up the definition of ambient dose equivalent
23 and I kept scratching my head even harder
24 'cause I didn't know what the definition really
25 totally were, so there's a lot of data here

1 that seems superfluous, takes away from the
2 efficiency and the clarity of a procedure.
3 So let me just briefly summarize. We -- we
4 obviously had a -- a tally here in -- in one of
5 the earlier procedures -- no. Well, I'm lost
6 here. Where I am?
7 Here. These are the numbers. As I said,
8 again, the majority of ratings were not
9 applicable, 525. A good number were perfect
10 scores, and there were shades of deficiencies
11 that ranged from the -- never to -- to most of
12 the time, and so forth.
13 What I did not want to discuss this morning are
14 technical issues. I didn't know that, for
15 instance, Mark Griffon was going to introduce a
16 matrix, unbeknownst to me. He said he did it
17 on the 4th of July. He didn't inform me about
18 it. And I really clearly wanted to avoid the
19 issue of technical issues because, out of
20 fairness to NIOSH and ORAU, I did not want to
21 address specific technical issues without
22 having to go through an iterative process by
23 which we could say well, you know, I cited you
24 here as a deficiency. You've clarified it.
25 I've -- see things now in a different light and

1 I'll walk away from it. I didn't want to be in
2 that position. I believe that there are
3 technical issues that need to be looked at very
4 carefully, including DCFs. But at this point I
5 would refrain from identifying and discussing
6 those particular issues until SC&A has had a
7 face-to-face communication with NIOSH people.
8 And some of these issues may very well be
9 resolved in their favor. We may realize we
10 were wrong in identifying them and some will
11 have to require resolution because we're right.
12 But that day hasn't come yet and we'll
13 obviously look forward to the time when we will
14 meet with NIOSH and -- and discuss some of our
15 technical findings.

16 The non-technical findings I'm not sure what to
17 do about them. As I said, they will have
18 probably been reviewed in -- in the past and
19 they have -- numerous revisions have been made
20 to take care of some of the problems that we
21 have may -- may have identified. There are
22 many new TIBs which we have not looked at that
23 have come out and they keep coming out. There
24 have been revisions to -- to those documents
25 and including new TBDs that will be used in

1 category three and so forth. So I want to be
2 sure that -- this review has not been a
3 comprehensive and exhaustive review for those
4 very reasons. This set of 33 documents pretty
5 much focused on generic documents, complex-wide
6 documents. Part of our review was not to look
7 at TBDs, which are very, very critical and
8 instrumental in doing the best estimates, which
9 are likely to be something that I -- ORAU and
10 NIOSH hasn't even really entered into yet
11 because the low-hanging fruit have been the
12 first in line and prioritized in terms of
13 adjudication. So at this point in time our
14 findings may have limited impacts from all
15 those factors.

16 And -- and I just want to for -- for -- as a
17 way of leading into -- into Kathy's
18 presentation, as I'd already mentioned, you're
19 all familiar with the three categories of
20 partial -- category one we call a partial
21 and/or minimized dose reconstruction. A
22 category two, which is really the focus of most
23 of these procedures, are the maximized dose
24 reconstruction. And of course category three
25 are the best-estimate, which will obviously be

1 the -- those -- claims that require an
2 incredible amount of work. Category one, just
3 again here, they are really used to ensure that
4 a person's going to be compensated, where even
5 a partial dose reconstruction, very incomplete,
6 already puts you over the 50 percent mark and
7 we don't need to really worry too much about
8 uncertainty and others, so these -- these
9 category of claims are least affected by the
10 quality of the dose -- of dose reconstruction
11 procedures because they almost -- in some
12 instance don't even have to bother with it if
13 you're, for instance, dealing with strictly an
14 issue of external dose that puts you over the
15 50 percent mark.

16 In terms of category two, the maximized dose,
17 again, they're somewhat insensitive to
18 precision because we build in so much fat in
19 overestimating doses. We give hypothetical
20 internal, even though there's no evidence that
21 the person was even monitored, let alone been
22 exposed. And errors here simply don't mean
23 anything. They're used to basically say no to
24 a claimant. And even when you maximize doses,
25 the POC's less than 50 percent, so the need for

1 precision is simply not there when we do
2 maximized doses. The only thing we need to do
3 is to be sure that we have not overlooked
4 anything, that all pathways, all exposures to
5 different radionuclides have been properly
6 addressed, but precision is clearly not an
7 issue here.

8 And lastly of course is the category three,
9 which is the best estimate approach and we've
10 talked, again, in terms of Mallinckrodt, these
11 are the ones that will be very difficult
12 because they require a thorough understanding
13 of how to interpret the bioassay data, how to
14 interpret the -- the external doses, the missed
15 doses, et cetera. And there are likely to be
16 those cases where a marginal error could easily
17 trigger a non-compensable to a compensable
18 claim, and this is where we need to be very
19 sure that we understand what we're doing and
20 how to do the dose reconstruction properly.
21 And as I said, I think Kathy will talk more
22 about what kinds of claims that we have looked
23 at in the dose reconstruction in a discussion
24 that she'll have this morning yet. So I'll
25 close with that statement and if there's any

1 questions I'll be happy to answer those.

2 **DR. ZIEMER:** Thank you, Hans. Let me open the
3 floor for questions from the Board members on
4 the presentation. We do need to --

5 **MR. PRESLEY:** Gen has one.

6 **DR. ZIEMER:** Oh, sorry, Gen Roessler. Sorry, I
7 didn't see you there.

8 **DR. ROESSLER:** I just have a comment. This was
9 a huge amount of work for your team to do, and
10 it also impresses me that this whole set of
11 procedures for NIOSH and ORAU was very much a
12 learning procedure, starting from the very
13 beginning going on through all the improvements
14 and recognizing where things could be redone.
15 And it kind of reminds me of supervising a
16 master's or Ph.D. work where the student, in
17 learning what they're doing, has to put all
18 that information there. And then later on you
19 realize it's not necessary and you move it to
20 an appendix.

21 I guess I'm wondering, is there anything that
22 really needs to be done with these deficiencies
23 that you see in the procedures, or -- or is --
24 is this being taken care of by the later
25 procedures that -- that sort of correct the

1 deficient --

2 **DR. BEHLING:** Yeah, if you look at the bottom
3 line tally among the categories, other than
4 five and NA, I believe they come up to 154. So
5 in essence we had 154 comments and -- and
6 statements regarding deficiencies. And I will
7 tell you, many of them are subjective. Many of
8 them are things that may not have to be
9 corrected, it's just a -- if we talk about a
10 poor formatting of a procedure, what do you do?
11 Rewrite the procedure if you want to, but at
12 this point it may be unnecessary in lieu (sic)
13 of the fact that many of these procedures have
14 been replaced by spreadsheets and work books.
15 And so the question is, do we need to do that.
16 Now I will tell you that there are some
17 procedures that are used that are very poorly
18 written and very ambiguous, and I think Kathy's
19 going to get into it. And I will cite to you
20 two procedures in particular, TIB 8 and 10.
21 For all the 38 dose reconstruction we've done
22 to date, I've seen just about every one of them
23 fail to understand what the intentions were of
24 TIB 8 and 10 and understanding how to maximize
25 doses. And even when -- as I said, maximized

1 doses are not necessarily affected by
2 precision, but there was a consistent misin--
3 misunderstanding on the part of the dose
4 reconstructor in their interpretation of those
5 procedures.

6 Again, you want -- you may want to just rewrite
7 these in order to clarify these -- if these
8 complex-wide procedures are used in the future.
9 Just for the record, I think some of the work
10 books may illuminate that because the option
11 for doing a redundant approach may no long
12 exist when a person then clicks on -- on -- on
13 an icon or something and says this is what I
14 want to do, so the misinterpretation has been
15 eliminated.

16 There are, however, a couple of issues that I
17 will say are very important issues that need to
18 be looked at in terms of technical
19 incorrectness. And I think -- we briefly
20 mentioned, I don't want to get into it because,
21 as I said, I wasn't even going to bring those
22 up because we have not had a face-to-face with
23 -- with NIOSH in discussing our concerns, some
24 of these technical issues.

25 And so yeah, I think -- to answer your

1 question, the majority these 154 items and
2 comments will probably not amount to a
3 significant issue at this point, but there are
4 some technical issues that I would hope will be
5 resolved because they're so important, not just
6 for the claims that have been done, but for
7 future claims, as well. And they cross all
8 categories.

9 **DR. ZIEMER:** Thank you. Mark has a question or
10 comment.

11 **MR. GRIFFON:** I guess I was going to offer a
12 response to Gen's question, as well. We don't
13 know, you know, and that's -- I think we
14 discussed it in the subcommittee yesterday that
15 we're starting to set up a resolution process,
16 and I took a first shot at -- at sort of what
17 Hans was talking about, taking out some of the
18 more technical issues and -- and putting them
19 into that -- that preliminary matrix and saying
20 these are ones that I think are more over-
21 arching. But I think yesterday -- I -- I don't
22 know if we -- we need to --

23 **DR. ZIEMER:** During our working session we are
24 going to come back and take a first crack at
25 what are next steps now, what do we do with

1 this report. If there are issues that need
2 sort of a common resolution process, we need to
3 get the ball rolling on that and we will
4 address that during our working session later
5 today.

6 **MR. GRIFFON:** Yeah, I guess I was going to -- I
7 think we -- we discussed that at the
8 subcommittee. I don't think we brought it back
9 to the full Board yet, but we need to to bring
10 that --

11 **DR. ZIEMER:** Right.

12 **MR. GRIFFON:** -- proposal back to the full
13 Board, yeah.

14 **DR. ZIEMER:** And we have a -- we have a
15 starting matrix for that purpose that we'll use
16 in that discussion.

17 **MR. GRIFFON:** Can I ask -- can I ask one other
18 --

19 **DR. ZIEMER:** You bet.

20 **MR. GRIFFON:** -- item of Hans? It -- it -- I -
21 - I -- I glance at this summary sheet and it
22 strikes me that 525 of your -- of your matrix
23 items or whatever that high number was, are NA.
24 And it raises the question in my mind as to
25 whether we have the right evaluation objectives

1 up there. If everything's not applicable, are
2 we measuring -- are we looking at the right
3 metrics? Just -- just something I was
4 thinking, Hans.

5 **DR. BEHLING:** That's due to the diversity of
6 the procedures. For instance, when we look at
7 a host of QA, they have nothing to do with
8 external or internal dosimetry --

9 **MR. GRIFFON:** Right.

10 **DR. BEHLING:** -- and clearly -- or the CATI
11 interview. You know, they -- they were select
12 questions that were geared towards only select
13 procedures. And we knew from the beginning
14 that not all of these review objectives will
15 apply. In fact, most of them would not, to a
16 given procedure. But in order to keep things
17 consistent, we wanted to keep a -- a -- sort of
18 a review checklist that would be used for each
19 and every single procedure, even if the
20 majority of -- of our objectives were NA to
21 that procedure.

22 **MR. GRIFFON:** Okay.

23 **DR. BEHLING:** And of course one of the -- the
24 shortcomings was that we reviewed these
25 procedures before we had a chance to look at

1 the dose reconstruction audits. And I liken
2 that to a situation where you walk into the
3 showroom and say gee, I'm interested in looking
4 at a car but, you know, the -- the -- the
5 salesman says well, here are the technical
6 specifications. And you sort of say well, they
7 sound great, but you know, I really want to
8 take it out for a test drive, and he says no,
9 not -- not now. And so right now we're -- when
10 we reviewed these -- these procedures, we only
11 had the tech specs to look at. We didn't have
12 the benefit of a test drive. And the test
13 drive comes with the review that Kathy's going
14 to give you from the audits, which will verify
15 some of our findings in many instance. In some
16 instances we identified, as a result of our
17 review of the dose reconstructions, things that
18 we should have picked up but didn't because now
19 we are seeing it through the eyes of the dose
20 reconstructor. What did he do? He didn't
21 understand the procedure. But we didn't have
22 that benefit when we first looked at the
23 procedures themselves, so some of the findings
24 that I would have introduced here in our -- our
25 procedure review came only -- that wisdom only

1 came with us doing the audits themselves.

2 **DR. ZIEMER:** Good. Thank you. Other
3 questions?

4 Okay. Thank you, Hans. We're going to move on
5 then to the next presentation -- this is the
6 test drive, I guess -- report on the -- oh,
7 wait a minute.

8 **MR. GRIFFON:** Where are we on the agenda, yeah.

9 **DR. ZIEMER:** Where are we on the agenda?

10 **MR. GRIFFON:** I think we're doing the first 20
11 cases.

12 **DR. WADE:** Well, we could reverse the order if
13 you wanted to do that.

14 **MR. GRIFFON:** I -- I --

15 **REPORT ON THE REVIEW OF THE FIRST 20 DOSE**

16 **RECONSTRUCTIONS**

17 **DR. ZIEMER:** Yeah, actually what -- what is
18 next on the agenda is the first 20 cases. The
19 second 18 comes a little later, sorry. I was -
20 - after Hans's remarks, I was so ready to see
21 the outcome there that I skipped ahead.

22 On the first 20 cases we had the report from
23 SC&A. We went through what became known as the
24 six-step process where there was some dialogue
25 back and forth with NIOSH. And ultimately we

1 ended up with a matrix, the latest version of
2 which -- I'm looking for a date on it. Did it
3 have a date on it?

4 **MR. GRIFFON:** Probably not. No, there's no
5 date.

6 **DR. ZIEMER:** Which will contain today's date,
7 which you will write in. Anyway, you should
8 all have it there at your place. As the matrix
9 has developed, each of the findings of SC&A has
10 been identified and cross-walked to the
11 original document. There's a finding number
12 that also includes with it the particular
13 portion from the original report, so the
14 finding number 1.1 also references item C.2.1,
15 which I believe is where it rises in the
16 original report from SC&A. There's a brief
17 phrase or sentence which summarizes the
18 finding, a brief summary of NIOSH's response.
19 There's a ranking -- let's see, what is the
20 next -- case rank. This was a high, medium,
21 low ranking in terms of level of importance, if
22 we want to call it that. In some cases a
23 ranking in terms of whether this was -- I'm
24 trying to remember now -- program-wide or
25 simply --

1 **MR. GRIFFON:** Case-specific.

2 **DR. ZIEMER:** -- case-specific. And
3 identification of whether it was a technical
4 issue versus a -- what were the other ones --
5 procedural or quality issue. Identification of
6 external, internal -- was there another
7 category in there -- or a CATI issue --
8 internal dose, external dose, CATI. And
9 ultimately the resolution -- the NIOSH
10 resolution. In other words, did NIOSH accept
11 it or agree with it or -- or is there some
12 other resolution, and then finally a proposed
13 Board action, and it's the proposed Board
14 action that we have to take actual action on.
15 Now these proposed actions are categorized as 1
16 to 7, and what we will need to add for your
17 assistance here comes from an earlier document,
18 and that is what do the numbers 1 through 7
19 mean.

20 **MR. GRIFFON:** Right.

21 **DR. ZIEMER:** And Mark, if you have that before
22 you, I'll let you read that. I have it here,
23 if you don't.

24 **MR. GRIFFON:** Yeah.

25 **DR. ZIEMER:** Go ahead.

1 **MR. GRIFFON:** And I -- I think it needs to be
2 added as a footnote on the matrix itself --

3 **DR. ZIEMER:** And I might add that --

4 **MR. GRIFFON:** -- but I didn't get around to
5 that.

6 **DR. ZIEMER:** -- I think initially we had 1 to
7 6, when this Board last met.

8 **MR. GRIFFON:** That's right.

9 **DR. ZIEMER:** But we determined in the working
10 group at Cincinnati about a month ago, as -- I
11 think Mark and I went over this, we realized
12 that there was an additional category we needed
13 to add, and that's what the 7 is, and Mark'll
14 tell you what that is.

15 **MR. GRIFFON:** Right, number -- number 1 is
16 NIOSH agrees and accepts the finding; 2, NIOSH
17 disagrees but will comply --

18 **MS. MUNN:** Go slowly.

19 **DR. ZIEMER:** Go slower.

20 **MR. GRIFFON:** Three, NIOSH disagrees --

21 **MS. MUNN:** Hold on, hold on.

22 **DR. MELIUS:** Start all over again, Mark.

23 **MR. GRIFFON:** Do we want just copies of this
24 made? Is that --

25 **MR. PRESLEY:** That's what you need to do is

1 make a copy.

2 **MR. GRIFFON:** That'd be a lot easier and I --
3 and I don't have another copy, so...

4 **DR. ZIEMER:** The first six categories actually
5 we had agreed on earlier.

6 **MR. GRIFFON:** Right.

7 **DR. ZIEMER:** Unfortunately, they didn't get
8 carried across onto the matrix, but why don't
9 you go ahead and read them slowly, even --
10 we'll get the hard copy here, but --

11 **MR. GRIFFON:** I don't have --

12 **DR. ZIEMER:** -- number one --

13 **MR. PRESLEY:** He's got --

14 **DR. ZIEMER:** Oh, okay.

15 **DR. WADE:** As quickly as she can walk to the
16 copy machine.

17 (Pause)

18 **DR. ZIEMER:** I thought I was going to pull them
19 right -- here -- here they are. And actually,
20 Board members, you had a hard copy of this
21 before, but I'm not scolding you. You wouldn't
22 necessarily have brought it.

23 NIOSH --

24 **DR. MELIUS:** We need a moving van every time to
25 haul the paper.

1 **DR. ZIEMER:** That's literally true. I had some
2 boxes this time.

3 NIOSH agrees and accepts the finding, that's
4 number one.

5 Number two, NIOSH disagrees, but will comply.
6 The third one is similar but a little more
7 reluctant on NIOSH's part, it's NIOSH disagrees
8 and will not implement unless the Board
9 recommends action through HHS. It requires a
10 letter to the Secretary.

11 Number four, NIOSH disagrees and the Board and
12 NIOSH reach a compromise. This would be an
13 intermediate step if we were to agree outside
14 of a mandated solution to some sort of
15 compromise.

16 Number five, NIOSH disagrees and the Board
17 concurs. We -- in other words, we say we agree
18 that NIOSH -- we are basically agreeing with
19 NIOSH on the outcome rather than the
20 contractor.

21 Number -- am I going too fast?

22 **MS. MUNN:** It's fine.

23 **DR. ZIEMER:** Okay. Number six, the issue is
24 deferred to -- to the site profile, the TBD or
25 procedures review process. And -- and I -- in

1 other words, it's not resolved here. The Board
2 in essence is saying we are deferring this
3 because it's going to be handled in the site
4 profile. Let me read it again.

5 The issue is deferred to the site profile or to
6 a site profile, TBD or procedures review
7 process. And there will be a number of these.
8 You will see more specifically how that
9 applies.

10 And then seven, which we hadn't allowed for,
11 was SCA concurs with NIOSH's view. In other
12 words, if NIOSH disagrees and SC-- and SCA says
13 we concur.

14 **MR. GRIFFON:** Right.

15 **DR. MELIUS:** And there are no gradations in
16 that?

17 **DR. ZIEMER:** Well, SCA reluctantly concurs.

18 **DR. MELIUS:** John Mauro agrees, but...

19 **DR. ZIEMER:** But it's going to cost you a steak
20 dinner.

21 Okay, those are the seven current categories.
22 You'll have hard copy before you here
23 momentarily. And what -- what we actually need
24 to do, and there's a lot of pages here, but I
25 think once we're under way, we can speed

1 through this pretty rapidly. And actually if
2 it's a category 1 or a category 2, it would be
3 my sense of it that that closes the issue and
4 we don't have to actually do anything -- we
5 would accept it, but if it's a 1 or a 2, it
6 means that NIOSH agrees with the finding and
7 accepts it, or will comply with it.

8 **MR. GRIFFON:** As long as NIOSH agrees with my
9 interpretation that it was a 1 or 2, yeah.
10 Yeah.

11 **DR. ZIEMER:** Right. Now --

12 **MR. GRIFFON:** I mean I -- sometimes that was me
13 trying to understand what was written in the
14 NIOSH resolutions, so --

15 **DR. ZIEMER:** In some of these, yes, it's where
16 Mark thinks that --

17 **MR. GRIFFON:** Right. Right.

18 **DR. ZIEMER:** -- NIOSH -- maybe that's another
19 category, Mark thinks.

20 **MR. GRIFFON:** Yeah.

21 **DR. ZIEMER:** Also if -- if there are ones where
22 we think SC&A concurs with NIOSH's response,
23 then -- and --

24 **MR. GRIFFON:** We see Stu moved up closer to --
25 to take care of those 1s and 2s. Yeah.

1 **DR. ZIEMER:** Okay. Do we need to pause until
2 we get the hard copy or...

3 We -- we can proceed. Okay, the first one is
4 an example where there was a finding, NIOSH
5 gave a response and you notice on the
6 resolution NIOSH and SC&A agree with the way
7 the exposure time was handled in the site
8 profile. Basically that's a 7. SC&A is
9 concurring then.

10 **MR. GRIFFON:** That's an easy one.

11 **DR. ZIEMER:** Okay. And if -- if NIOSH and SC&A
12 agree with the -- with the 7, unless there's an
13 objection, I'm going to take it that the Board
14 concurs that this resolves that issue and the 7
15 would be our action -- Is that agreed? -- and
16 we'll proceed through these in that manner.

17 **MR. GRIFFON:** If we -- I -- Paul, just for
18 processing, I think if -- if we don't hear an
19 objection -- you know, SC&A or NIOSH, if you
20 have an objection, just step to the mike as
21 we're --

22 **DR. ZIEMER:** Sure.

23 **MR. GRIFFON:** -- you know. We won't have to
24 ask each time, maybe.

25 **DR. ZIEMER:** We'll make sure that -- right.

1 Stu?

2 **MR. HINNEFELD:** Why don't I just suggest that
3 I'll speak up if I feel like we haven't been
4 characterized --

5 **DR. ZIEMER:** Thank you.

6 **MR. GRIFFON:** That's what I was trying to say.

7 **DR. ZIEMER:** And you likewise, John, for...
8 okay. The next item, finding 1.1(b), this is
9 an issue that is to be addressed in the review
10 of the Blockston (sic) Chemical site profile,
11 so this would be a 6, and in essence the
12 finding is not resolved here and awaits the
13 resolution in that -- was this a Blockson --
14 let's see --

15 **MS. MUNN:** It doesn't look like it, the way
16 it's stated. The summary finding looks like
17 it's more general than that.

18 **MR. GRIFFON:** Yeah, it -- the inter--

19 **DR. ZIEMER:** Mark, do you recall?

20 **MR. GRIFFON:** -- the interesting -- the
21 interesting dilemma we face here is that we
22 haven't tasked our contractor with doing the
23 review of the site profile for Blockson, so --
24 but the NIOSH resolution that was given to --
25 provided to me said, you know, that this is

1 pending the review of the Blockson profile, so
2 I think that -- that would necessitate us to
3 take up that profile as -- on a review basis.

4 **DR. ANDERSON:** To see how it was addressed?

5 **MR. GRIFFON:** Right.

6 **DR. ZIEMER:** Stu?

7 **MR. HINNEFELD:** I think at the time we revisit
8 these in -- in the Blockson profile, say
9 revision or reconsideration of Blockson
10 profile, whatever's determined at that time we
11 can, you know, address with SC&A and -- and
12 bring back to the Board.

13 **MR. GRIFFON:** Okay.

14 **MR. HINNEFELD:** You know, the language that's
15 chosen here does sort of imply that there will
16 be a review of the Blockson Chemical site
17 profile, which I don't think is on the agenda
18 at the moment -- or at the moment, and -- and
19 it may not be what you want to do to force that
20 to happen because of this particular response.

21 **MR. GRIFFON:** That's fine.

22 **DR. ZIEMER:** Right now this does not require an
23 SC&A -- this says that NIOSH will address the
24 issue in the profile, and the implication here
25 is that the Board then would see how it's

1 addressed in the profile. In a sense, it
2 delays us taking action on this till we see
3 what NIOSH has come up with.

4 **MR. HINNEFELD:** Yeah. And I just want to make
5 sure that -- I don't think you --

6 **DR. ZIEMER:** It doesn't necessarily task SC&A
7 at --

8 **MR. HINNEFELD:** SC&A to do --

9 **DR. ZIEMER:** -- this point to do anything.

10 **MR. HINNEFELD:** Okay. I think it can be
11 resolved --

12 **MR. GRIFFON:** Yeah.

13 **MR. HINNEFELD:** -- without obliga-- obligating
14 ourselves today --

15 **DR. ZIEMER:** Yes.

16 **MR. HINNEFELD:** -- for review of the site
17 profile. Right.

18 **DR. WADE:** Right, but -- but in essence NIOSH
19 agrees and accepts this recommendation and
20 intends to act upon it.

21 **MR. HINNEFELD:** Yes, it -- it's -- we need to
22 do things in response to this --

23 **DR. ZIEMER:** Right.

24 **DR. WADE:** Right.

25 **MR. HINNEFELD:** -- this item, this

1 recommendation.

2 **DR. ZIEMER:** In essence, this -- if the Board
3 accepts item 6 as our -- our action, it -- the
4 item remains open. That's all I'm saying.

5 **MR. GRIFFON:** Yeah.

6 **DR. ZIEMER:** You understand what I -- the point
7 here? So it doesn't close out the item. That
8 -- our action is that this will be addressed in
9 the site profile. The item --

10 **MR. GRIFFON:** Right, and --

11 **DR. ZIEMER:** -- therefore remains open.

12 **MR. GRIFFON:** -- it doesn't necessarily -- what
13 I hear them saying is it doesn't necessarily
14 commit to the Board reviewing Blockson site
15 profile, but what -- it's just NIOSH, as
16 they're finishing that site profile, they'll
17 come back with these answers. Right? Yeah.

18 **DR. ZIEMER:** So I'm -- I'm just saying it
19 remains an open item. At some later point we -

20 -

21 **MR. GRIFFON:** Yeah, deferred.

22 **DR. ZIEMER:** -- have to address it again.

23 Wanda, do you have a question on that?

24 **MS. MUNN:** As we're going through these, I'm
25 assuming that 7s and probably 1s will just fall

1 off the -- the list.

2 **DR. ZIEMER:** Right.

3 **MS. MUNN:** We will no longer carry the --

4 **DR. ZIEMER:** And now you will notice that
5 there's a series here of -- of 6s in a row that
6 --

7 **MR. GRIFFON:** Right, no further tracking, you
8 mean, yeah, right, right.

9 **DR. ZIEMER:** There's seven 6s in a row here;
10 all of these are Blockson issues.

11 **MR. GRIFFON:** Right.

12 **DR. ZIEMER:** Okay. Any -- any questions on
13 those? Those would remain open items. Okay.
14 Then we're ready for item -- this may be a
15 little hard to read. This is item 2.1 and
16 NIOSH agrees and accepts.

17 **MR. GRIFFON:** Thi-- this -- Stu, there's a
18 couple here that don't have a NIOSH resolution
19 listed, and I think these are ones that SC&A
20 had in their original text but it wasn't in
21 that Cincinnati meeting we had, so you might
22 want to pay close attention to these ones that
23 don't have a...

24 **MR. HINNEFELD:** Well, I think it -- it's
25 certainly true that -- of these three that I

1 see, that we agreed to some reconsideration of
2 the question.

3 **DR. ZIEMER:** Yeah, it was an eval-- agreed to
4 evaluate something, and apparently went ahead
5 and did that, as -- perhaps. I don't recall.
6 Or --

7 **MR. HINNEFELD:** Well, I don't know that we've
8 actually completed it yet.

9 **DR. ZIEMER:** Oh, okay, but --

10 **MR. HINNEFELD:** Yeah, I'd say that --

11 **DR. ZIEMER:** -- apparently agreed to do it or
12 something.

13 **MR. HINNEFELD:** -- we -- we agree that we need
14 to reconsider the -- the question raised here,
15 and -- but I don't know that we have
16 determined, you know, concurrence with the
17 comment as made. I don't know that we
18 particularly dispute it, either, but -- I just
19 don't know that we've finished evaluating it
20 yet.

21 For instance, one of these is a MCNP run that's
22 discrepant. We have an MCNP run, they have an
23 MCNP run; they don't agree. And so we're -- we
24 have not yet been able to chase down the
25 discrepancy. You know, that's one. That's

1 that five-fold birdcage, right?

2 **DR. MELIUS:** Is that for another category
3 then?

4 **DR. ZIEMER:** I'm -- I'm wondering if this
5 doesn't cause the item to be open then.

6 **DR. ANDERSON:** Become 6.

7 **MR. HINNEFELD:** Maybe it's a --

8 **DR. ZIEMER:** This -- this is one -- the only
9 agreement here is that you would follow up on
10 this.

11 **MR. HINNEFELD:** Yes.

12 **DR. ZIEMER:** And that has not yet been done --

13 **MR. GRIFFON:** (Unintelligible) 6s --

14 **DR. ZIEMER:** -- so maybe -- maybe this is a
15 category -- this is not necessarily a 6, is it?

16 **MR. HINNEFELD:** I believe this is also dose
17 model dose reconstruction, isn't it? Which --
18 which site's this from? I don't remember right
19 now.

20 **MS. MUNN:** Seems like the same thing.

21 **MR. HINNEFELD:** Which case is -- is this
22 Huntington?

23 **MR. GRIFFON:** Yeah.

24 **MR. HINNEFELD:** Huntington? It would be the
25 same type of thing. We would have to re-

1 evaluate the information in the Huntington site
2 profile --

3 **MR. GRIFFON:** Yeah.

4 **MR. HINNEFELD:** -- in order to -- and -- and
5 any revision we would make in response would be
6 in a revision of the Huntington site profile,
7 so it'd be really analogous to the Blockson
8 cases.

9 **DR. ZIEMER:** Okay, so this would be addressed
10 in the Huntington site profile, so we should
11 change this then to a 6 and put that comment on
12 -- under resolution.

13 **MR. GRIFFON:** Yeah.

14 **DR. ZIEMER:** Is that true for all three of
15 these --

16 **MR. GRIFFON:** Four of those maybe.

17 **DR. ZIEMER:** -- the C -- 2.1, .2 and .3?

18 **MR. HINNEFELD:** Yes.

19 **MS. MUNN:** So they're all Huntington.

20 **DR. ZIEMER:** And then the next one after that
21 is also Huntington. It's also a 6.

22 **MS. MUNN:** Yeah.

23 **DR. ZIEMER:** Is that agreed?

24 **MS. MUNN:** Yeah.

25 **DR. ZIEMER:** Okay. On -- then we're at item

1 2.5, this is a re-evaluation also. What -- is
2 this a Huntington issue?

3 **UNIDENTIFIED:** Right.

4 **DR. ZIEMER:** This then I believe becomes a 6,
5 also.

6 **MR. HINNEFELD:** Well, no, actually we -- we
7 agreed with 2.5 that that was an error. It was
8 an error that was made and it substantially --
9 it resulted in a dose that's substantially
10 higher than what it should have been had the
11 IMBA run been done correctly, and so we agree
12 that it's an error.

13 **MS. MUNN:** It was a data entry thing.

14 **MR. HINNEFELD:** But we didn't -- you know, I
15 don't know if you have a category -- we agree
16 it's an error, but it doesn't warrant
17 correction because it was a significant
18 overestimate of dose of a case that had a POC
19 less than 50 percent.

20 **MS. MUNN:** They just put in the wrong values.

21 **DR. ZIEMER:** So it's not -- the re-evaluation -
22 - it says NIOSH agrees to re-evaluation.

23 That's --

24 **MR. HINNEFELD:** (Unintelligible) wrong one?

25 **DR. ZIEMER:** -- not quite correct, then.

1 **MR. HINNEFELD:** Which -- maybe I'm looking at
2 the wrong one.

3 **MR. GRIFFON:** 2.5 (unintelligible) --

4 **MR. HINNEFELD:** 2.5-G.4.

5 **DR. ANDERSON:** It was an error, but it didn't
6 change the...

7 **DR. ZIEMER:** So --

8 **MR. HINNEFELD:** Okay, well --

9 **DR. ZIEMER:** So the resolution is that NIOSH
10 acknowledges the error --

11 **MR. HINNEFELD:** We acknowledge the error.

12 **DR. ZIEMER:** -- but no -- it had no effect on
13 the outcome?

14 **MR. HINNEFELD:** Right, the error was on --

15 **MR. GRIFFON:** No correction required.

16 **MR. HINNEFELD:** -- on the high side. It was --
17 the error significantly overestimated what the
18 internal dose would have been from the exposure
19 situation, and so the case ended up, even as it
20 was done, ended up with a probability of
21 causation of less than 50 percent. So if we
22 would correct this error it would just go lower
23 -- farther below 50 percent.

24 **DR. ZIEMER:** Yes.

25 **MR. HINNEFELD:** So we don't propose to actually

1 do anything.

2 **MR. GRIFFON:** I -- I put in the NIOSH
3 resolution NIOSH agrees, comma, no correction
4 required since error resulted in overestimate.

5 **MR. HINNEFELD:** Right. Right.

6 **DR. ZIEMER:** So basically you're accepting the
7 finding and --

8 **MR. HINNEFELD:** Yes.

9 **DR. ZIEMER:** -- thus a 1 is correct there.

10 **MR. HINNEFELD:** Yes, we agree that the finding
11 is correct.

12 **DR. ZIEMER:** Okay, 2.6, this is a re-evaluation
13 issue again.

14 **MR. GRIFFON:** Yeah, thi-- this was the work
15 period question.

16 **MR. HINNEFELD:** Well, I recall the -- I can
17 recall the issue, and I'm trying to decide how
18 best to phrase the -- what the resolution would
19 be. I think 1's probably the best response
20 there, we agree and will -- will modify it to
21 adjust. Because this was a question of what
22 was the covered employment and therefore
23 potential exposure period. And it had to do
24 with sort of an idiosyncrasy that really only
25 occurred with Huntington where there was a

1 verified employment period that ended before
2 the end of the employee's total employment at
3 that plant. Huntington Pilot Plant, one
4 portion of the Huntington plant was shut down
5 at a particular year and therefore the verified
6 employment reported to us by labor terminated
7 with the shut-down of the Huntington Pilot
8 Plant. Okay. The Huntington Pilot Plant
9 wasn't necessarily forbidden property after
10 that day, and so a worker who continued to work
11 at Huntington could have entered and then had
12 some residual contamination exposure.

13 **DR. ZIEMER:** Well, did -- did this have to go
14 back to Labor to get the time period changed or
15 -- or --

16 **MR. HINNEFELD:** No.

17 **DR. ZIEMER:** -- were you authorized to change
18 it?

19 **MR. HINNEFELD:** We're -- we are allowed to
20 include residual contamination --

21 **DR. ZIEMER:** So --

22 **MR. HINNEFELD:** -- exposure to someone who has
23 covered employment and then continues
24 employment in a residual contamination period.
25 We can do that without having to go back to

1 Labor --

2 **MR. GRIFFON:** So NI--

3 **MR. HINNEFELD:** -- so we agreed --

4 **MR. GRIFFON:** -- NIOSH agrees and will modify -
5 -

6 **MR. HINNEFELD:** Yes.

7 **MR. GRIFFON:** -- is that okay?

8 **MR. HINNEFELD:** Sure. Or we will at least
9 consider the impact of the change. For
10 instance, if -- if the change --

11 **MR. GRIFFON:** Okay.

12 **MR. HINNEFELD:** -- represents -- you know, this
13 -- this case has a very low probability of
14 causation, even with the IMBA error already
15 built in.

16 **DR. ZIEMER:** Right, it may not affect the
17 outcome, but you -- you are --

18 **MR. HINNEFELD:** I don't think it's going to
19 affect the outcome --

20 **DR. ZIEMER:** -- going to go --

21 **MR. HINNEFELD:** -- but we will evaluate how
22 this affects the outcome of the case.

23 **DR. ZIEMER:** Okay.

24 **MR. HINNEFELD:** I suspect it won't actually --

25 **DR. ZIEMER:** Yeah.

1 **MR. HINNEFELD:** -- affect the outcome of the
2 case, in which case we wouldn't necessarily
3 submit a new one back to Labor.

4 **DR. ZIEMER:** Right.

5 **UNIDENTIFIED:** Agreed.

6 **DR. ZIEMER:** This is -- the action -- the 1 is
7 then correct.

8 **MR. HINNEFELD:** Yes.

9 **DR. ZIEMER:** Yes. The next one is 3.1, and
10 this -- actually the next -- there's six in a
11 row here, all of which involve the Bethlehem
12 site profile, so those would be deferred by
13 indicating that the issue's deferred to the
14 site profile. Any comments from NIOSH on that?
15 No. Board members, okay on that? Okay.

16 Item 4 --

17 **MR. GRIFFON:** I guess I should put NA for Board
18 action on those.

19 **DR. ZIEMER:** Clarify item -- items 4 and 5 for
20 us, Mark, could you -- or Stu?

21 **MR. HINNEFELD:** Well, it -- they're case number
22 4 and case number 5, and they're both Bethlehem
23 Steel cases and so the findings from those
24 cases are characteristic -- like case 3 was,
25 they flow directly from the site profile and so

1 --

2 **MR. GRIFFON:** Except --

3 **MR. HINNEFELD:** -- and so resolution of the
4 site profile --

5 **MR. GRIFFON:** I guess the one distinction is I
6 think the two -- 4 and 5 were both lung
7 maximizing situations --

8 **MR. HINNEFELD:** Oh, okay.

9 **MR. GRIFFON:** -- so -- so the findings were
10 more for the one that was denied rather than
11 the two that were overestimates or --

12 **MR. HINNEFELD:** Oh, okay. Sorry.

13 **MR. GRIFFON:** -- or -- or --

14 **MR. HINNEFELD:** Sorry.

15 **MR. GRIFFON:** Right. The two were over 50
16 percent lungs so the result in these findings
17 wouldn't -- wouldn't necessarily -- they
18 weren't findings, they -- they weren't
19 comfortable with that, but where they could
20 have been important in -- in resolving is the
21 case that was denied, so that why they're
22 findings on case 3 but not 4 and 5 for
23 Bethlehem Steel.

24 **DR. ZIEMER:** So there's no -- but should there
25 be a response, though, explaining, or... It

1 actually says no findings --

2 **MR. GRIFFON:** Right --

3 **DR. ZIEMER:** -- specific to case so --

4 **MR. GRIFFON:** -- no findings, yeah.

5 **DR. ZIEMER:** -- maybe that's suitable, and no
6 action therefore needs to be taken.

7 **MR. GRIFFON:** Right.

8 **DR. ZIEMER:** Okay, 6.1, the preliminary closure
9 is NIOSH agrees and accepts. This says NIOSH
10 will investigate.

11 **MR. HINNEFELD:** Well, the issue --

12 **DR. ZIEMER:** Well, yeah, okay.

13 **MR. HINNEFELD:** We will determine whether the
14 addition of the uncertainty affects the outcome
15 of the case. We agree that -- with the finding
16 they made that we should consider uncertainty
17 in this issue or evaluate whether the approach
18 suitably addresses it.

19 **DR. ZIEMER:** Right.

20 **MR. GRIFFON:** And -- right. And you'll modify
21 if it affects --

22 **MR. HINNEFELD:** If it affects the outcome of
23 the case, we --

24 **MR. GRIFFON:** Outcome, right.

25 **MR. HINNEFELD:** -- will then modify.

1 **MR. GRIFFON:** But otherwise (unintelligible).

2 **DR. ZIEMER:** So that is a -- that is an
3 agreement then.

4 **MR. HINNEFELD:** Yeah, that -- I believe it's
5 characterized appropriately or properly.

6 **DR. ZIEMER:** Okay. Thank you.

7 **MR. GRIFFON:** We're getting there.

8 **DR. ZIEMER:** 6.2 is disagree but comply. Any
9 comments on that one, Stu? Do you want to...
10 All dose of record was accounted for. Some
11 details were missing. Revised dose
12 reconstruction --

13 **MR. GRIFFON:** Surprised myself here.

14 **MR. HINNEFELD:** Yes, this --

15 **DR. ZIEMER:** -- drafted.

16 **MR. HINNEFELD:** -- this case, 6 -- case number
17 6, there were a number of errors identified
18 that we've evaluated to -- and reworked,
19 correcting those errors. They were errors.
20 They were, for instance, a misunderstanding of
21 the number of zeroes that should have been
22 included in the -- in the missed dose
23 calculation, seems like there were a couple of
24 others, as well. Part of it was based on the
25 fact that there seemed to be a page -- a page

1 or two missing from the DOE response that --

2 **MR. GRIFFON:** Should those be --

3 **MR. HINNEFELD:** -- wasn't picked up on.

4 **MR. GRIFFON:** Should those be 1s, did I make a
5 mistake?

6 **DR. ZIEMER:** Yeah, this says you disagree with
7 the finding but you're --

8 **MR. HINNEFELD:** No, that --

9 **DR. ZIEMER:** -- it sounds like you probably
10 agreed --

11 **MR. HINNEFELD:** -- probably a 1. Probably a 1.

12 **MR. GRIFFON:** So that's my mistake, I'm sorry.

13 **DR. ZIEMER:** Okay. Is that also true then with
14 --

15 **MS. MUNN:** All the way down.

16 **DR. ANDERSON:** Yeah.

17 **DR. ZIEMER:** -- down through the rest of that
18 page? Okay. So down through item 6.5(a) and
19 (b) everything would be a 1 then.

20 **MR. GRIFFON:** Right, and 6.6 also?

21 **UNIDENTIFIED:** It's already a 1.

22 **MR. GRIFFON:** Oh, yeah, that's a 1 already,
23 yeah. I'm sorry, I'm looking at --

24 **MS. MUNN:** Is that reconstruction
25 (unintelligible) --

1 **MR. GRIFFON:** -- computer...

2 **MS. MUNN:** -- or is it still in draft form?

3 **DR. ZIEMER:** Well, hang on. Are we okay
4 through 6.5 completing that page, (a) and (b),
5 Stu?

6 **MR. HINNEFELD:** Yeah, we're -- we're okay
7 making them all 1s. In response to the
8 question about is it complete, we still need to
9 do --

10 **DR. ZIEMER:** 6.5(c) on the next page also is a
11 1, improper cited reference to occupational
12 medical exposure?

13 **MR. GRIFFON:** Did we answer Wanda's question?
14 Wanda, didn't you have a question about a
15 drafted, is that --

16 **MS. MUNN:** My question was whether it's still
17 in draft -- whether the reconstruction is still
18 in draft form or has it been completed.

19 **MR. GRIFFON:** And that's what --

20 **MR. HINNEFELD:** We still need to add the
21 uncertainty issue from earlier on.

22 **MR. GRIFFON:** Okay.

23 **MR. HINNEFELD:** Now bear in mind that this --
24 this is -- these -- these errors all affect the
25 external dose -- dose on this dose

1 reconstruction and this -- internal dose on
2 this dose reconstruction was done with an
3 intentional overestimating approach, maximizing
4 approach, so there's -- there's very little
5 likelihood that the outcome of the case will
6 change once we correct all these things.

7 **DR. ZIEMER:** 6.7, the potential dose from an
8 incident. Currently this says NIOSH disagrees?

9 **MS. MUNN:** It says no change is needed.

10 **DR. ZIEMER:** It also says SC&A's February
11 report agrees with the conclusion regarding the
12 incident.

13 **MS. MUNN:** So it is a 4.

14 **DR. ZIEMER:** So that sounds like SCA is
15 accepting NIOSH response. Is that correct?

16 **UNIDENTIFIED:** Or is it a -- have we reached a
17 compromise?

18 **MR. HINNEFELD:** I think that -- I'd like to
19 offer an explanation on how that sentence ended
20 up in our response is that we started -- the
21 matrix originally was prepared with the
22 original version of the procedure or the first
23 20 reviewed. And subsequent to some
24 conversations, you know, in our conversion
25 process, another matrix was prepared from the

1 first version -- the listing, the findings.
2 And so we tried to deduce from the second one
3 whether an issue had gone away. We may have
4 made a mistake and we certainly didn't mean to
5 speak for SC&A and characterize their response.
6 It may be fair -- to be fair to them, we may
7 want to allow them the opportunity to see if
8 they -- if we did in fact accurately
9 characterize their response.

10 **DR. ZIEMER:** Okay. NIOSH -- this is the NIOSH
11 response. It says that SCA's February report
12 agrees with the conclusion, so Stu is asking if
13 he has correctly characterized your conclusion.
14 Kathy, can you answer?

15 **MS. BEHLING:** Yeah. Yes, in that -- in this
16 particular case we did feel that NIOSH could
17 have looked a little bit harder at the
18 radiological incident that was identified in
19 the CATI. However, we do agree with the fact
20 that NIOSH used the hypothetical internal dose
21 in calculating the internal dose portion, that
22 that should take care of, you know, any
23 radiological incident that may have happened.
24 So I guess we are saying that we do agree,
25 although --

1 **MR. GRIFFON:** I think I can -- I mean maybe my
2 -- I -- I wrote the number 4, so I'll try to
3 explain it. I think what I'm getting at here
4 was the -- the last sentence in the NIOSH
5 response -- NIOSH also agreed that this is --
6 this needed to be explained in the DR report.
7 We had a lengthy discussion at the workbook --
8 the workgroup level that -- that basically if --
9 -- if incidents were brought up in the CATI
10 reports it was important to convey in the DR
11 report that the dose reconstructors considered
12 that information, even if it -- even if it was
13 by saying we've looked into what you've
14 described in your incident scenario. We don't
15 have data for that particular incident, however
16 we've used over-arching -- overcompensating
17 mechanisms or assumptions to apply an internal
18 dose and therefore we still think we've --
19 we've given you a claimant-favorable
20 assessment. You know, that wasn't done in the
21 DR report, so I think the compromise was that
22 they -- they agreed to modify language in the
23 DR report. So it -- it was -- I guess it was
24 kind of a split finding almost there. You
25 know, they -- they -- I think we are all in

1 agreement that that incident likely wouldn't
2 have affected the outcome of the -- of the --
3 the case, but the second part was the -- where
4 I -- I guess -- that's why I put a 4 there.
5 I'm not sure if that number's the right action.

6 **MS. MUNN:** But now that the -- now that
7 another draft is out, now that a second DR is
8 out, doesn't that become a 7 then?

9 **MR. GRIFFON:** Well, there's no -- there's no
10 second DR out, I don't think, on this. They --
11 they've agreed to modify for future DR
12 reports...

13 **MR. HINNEFELD:** Right, I mean the only way we
14 would -- if we were to modify this dose
15 reconstruction for wording, we would be sending
16 a new dose reconstruction report to a claimant
17 who has received a decision that does nothing
18 different than change the wording. So we would
19 not expect to send a new dose reconstruction on
20 this -- for this case, but to pursue the idea
21 in future ones that have similar issues.

22 **MS. MUNN:** Okay.

23 **MR. HINNEFELD:** That's -- that's what we agreed
24 to.

25 **MR. GRIFFON:** Right.

1 **DR. ZIEMER:** Right. It sounds to me that this
2 is not a -- a 4 where NIOSH is disagreeing and
3 we're trying to reach a compromise. It sounds
4 like SC&A's accepted NIOSH's -- is that right?

5 **MR. GRIFFON:** I don't know.

6 **DR. ZIEMER:** No?

7 **MR. GRIFFON:** I -- I -- I don't think NIOSH
8 disagrees. I think you're right. I...

9 **DR. ZIEMER:** NIOSH has made a response. It
10 sounds like SC&A --

11 **MR. GRIFFON:** SC&A accepts and NIOSH accepts,
12 number 8 -- I mean it's -- that's --

13 **UNIDENTIFIED:** A 1-7.

14 **MR. GRIFFON:** Yeah. I think the complicating
15 part is it was kind of a split issue --

16 **DR. ZIEMER:** Oh, I see.

17 **MR. GRIFFON:** -- you know.

18 **MS. MUNN:** A 4.

19 **MR. GRIFFON:** Halfway, I know.

20 **DR. ZIEMER:** That's why -- yeah, but --
21 But -- but the 4 has an implication that NIOSH
22 still doesn't agree with this, but we're
23 finally going to close it out anyway. I would
24 -- I think -- this is not overly critical, but
25 I would suggest we just go with a 7 here and it

1 would say that there's closure on it and
2 agreement.

3 Henry?

4 **DR. ANDERSON:** Well, I mean it isn't --

5 **MR. GRIFFON:** Yeah.

6 **DR. ANDERSON:** -- that SCA concurs with NIOSH.
7 In other words, SCA's comment was wrong and --
8 and now they agree that -- so I don't think
9 it's a 7. If anything it would be a -- a 1.

10 **MR. GRIFFON:** See, I -- I -- I --

11 **DR. ANDERSON:** I mean that's what's a compro--

12 **MR. GRIFFON:** -- I think this is -- this is a
13 problem.

14 **DR. ANDERSON:** -- a compromise (unintelligible)
15 address.

16 **MR. GRIFFON:** I'm trying to find a way of doing
17 this without creating a new finding.

18 **DR. ANDERSON:** Yeah.

19 **MR. GRIFFON:** But I think it's a 1 and a 7. I
20 mean --

21 **DR. ANDERSON:** Yeah.

22 **MR. GRIFFON:** -- the one part -- SC&A agrees
23 that the incident wouldn't have affected the
24 outcome. The second part, NIOSH accepts that
25 they need to modify their DR reports, you know.

1 **DR. ZIEMER:** Okay, 1 and 7, that's
2 (unintelligible).

3 (Simultaneous comments)

4 **MR. GRIFFON:** 1 comma 7. That's going to look
5 interesting.

6 **DR. ZIEMER:** Okay, item 7.1 --

7 **MR. GRIFFON:** Yeah.

8 **DR. ZIEMER:** -- read it here, suggested
9 category is NIOSH does not accept. This is a
10 missed dose issue.

11 **MR. HINNEFELD:** Well, if you'd like to know the
12 -- the specifics of the issue are that this --
13 for this employee -- there were a number of
14 sites that badged people with a combination
15 badge that would measure photons and neutrons
16 both. And so they would generally process
17 those badges, and this is usually a TLD, a
18 combination TLD badge. So there would be zero
19 neutron reading in this person's record,
20 regardless of what their exposure potential
21 was. You know, whether they had a potential to
22 be exposed to neutrons or not didn't matter,
23 there would be a zero dose in their dose
24 record. So in this case the dose reconstructor
25 evaluated this person's exposure history, which

1 was relatively well-known where they worked and
2 determined these -- these areas there is no
3 appreciable neutron dose potential and
4 therefore we won't apply the neutron dose
5 methodology to these zeroes because there was
6 no neutron exposure potential in these jobs.
7 And that was the -- that was the decision of
8 the dose reconstructor. It seems to be -- you
9 know, in our view it's fairly well supported by
10 the quality information we had about where he
11 worked and the information we had about the
12 buildings and, you know, about the radiological
13 fields in those buildings.
14 Now this occurs relatively -- I mean not often,
15 but it's not uncommon to have sites that hang
16 one of these combination badges on people
17 because that's their dosimeter. They don't
18 make a judgment when they hang that dosimeter
19 on people that there's a likelihood for neutron
20 exposure. And so that's how we treat those
21 kinds of situations, and we do -- that's our
22 general practice and what we think is
23 appropriate in those cases.
24 The missed dose calculation is appropriate when
25 there's a potential for exposure to that kind

1 of radiation. But without that potential for
2 exposure to the radiation, you wouldn't -- we
3 don't think it's appropriate to be adding in
4 the missed dose numbers. So that's the
5 specifics of the -- the finding.

6 **DR. ZIEMER:** Okay.

7 **MR. GRIFFON:** And I -- I guess this was a --
8 and -- and I think 3 -- you know, it might
9 look different or bad, but it's -- I would
10 agree that no Board action's required, so I
11 think, you know -- I guess the point here, if -
12 - if -- and SC&A may help me out, but the point
13 here was that -- a procedural question, and --
14 and if they were strictly doing a maxim--
15 following their maximizing procedures, I think
16 we -- SC&A found that they -- they didn't
17 strictly follow them, and that might have -- go
18 ahead.

19 **MS. BEHLING:** Excuse me. I think in this
20 particular case it's a combination of the
21 procedural -- maximizing the dose, and also
22 just a judgment, a difference in judgment.
23 When we looked at the records and we looked at
24 the potential locations that the worker --

25 **MR. GRIFFON:** Right.

1 **MS. BEHLING:** -- may have worked, we felt there
2 was a potential for neutron dose. So it's just
3 a difference of opinion.

4 **MR. GRIFFON:** I think there -- I think there
5 was general agreement that even if that had
6 built -- been built in it wouldn't have
7 affected the outcome on -- I don't know about
8 that, though. This is a -- this may be the...

9 **MS. BEHLING:** Again, in this particular case,
10 this is a maximizing dose and so even if it was
11 a significant amount of neutron dose, on this
12 particular case I know they assigned a
13 hypothetical internal dose which was -- excee--
14 -- is a very high dose, and even if we
15 incorporated the neutron dose and it went over
16 the 50 percent, they would go back and refine
17 this. So it has no impact on changing the
18 compensability of the case.

19 **DR. ZIEMER:** If we agree with the 3, it does
20 close the issue. It simply says the two have
21 disagreed and we're not asking that anything be
22 done.

23 **MR. GRIFFON:** Right.

24 **DR. ZIEMER:** The issue is closed. Is -- so
25 that's --

1 **MR. GRIFFON:** Yeah.

2 **DR. ZIEMER:** Anyone objecting to a 3?

3 **MS. MUNN:** No (unintelligible) --

4 **DR. ZIEMER:** No --

5 **MS. MUNN:** -- (unintelligible) scientifics.

6 **DR. ZIEMER:** No objection. Is this the same --
7 let's see --

8 **MS. MUNN:** Same case.

9 **DR. ZIEMER:** -- 7.2, the same case, on on the
10 X-ray dose.

11 **MR. GRIFFON:** I think these are -- are similar
12 answers. Right, Kathy, on these next three?
13 Similar reasons for -- for...

14 **DR. ZIEMER:** Is 7.2, 7.3 and 7.4 all the same
15 issue, in essence?

16 **MR. HINNEFELD:** I think -- I think my
17 recollection is 2 and 3 are similar issue. I
18 mean there was a medical dose chosen that is --
19 was higher than what these references cited by
20 SC&A would prescribe. I believe that was -- I
21 believe that was the issue. Okay.

22 And then the 7 -- 7.4 has to do with the --
23 what's the appropriate target organ for a
24 lymphoma. And SC&A did not have available to
25 them at the time they reviewed the dose

1 reconstruction the medical opinion that had
2 been rendered by ORAU's medical expert on what
3 target organ to use for this case. So that's -
4 - that's the origin, I believe, of 7.4.

5 **DR. ZIEMER:** Okay. Again, this one would
6 identify that the disagreement remains, but
7 that no action is being taken.

8 **MR. GRIFFON:** Is that true? Okay.

9 **DR. ZIEMER:** Is that agreeable?

10 **MR. GRIFFON:** The only thing I would say
11 possibly for 7.2 -- you know, in looking at
12 that, I don't know if -- if PROC-6 is one of
13 the procedures under our procedures review, but
14 we might consider taking that up under --
15 deferring that under number 6 -- assigning a 6
16 to the Board action to say deferred to the
17 procedures review 'cause it is -- PROC-6 is the
18 question. But I don't know if that was under a
19 list of procedures that we reviewed -- it was.

20 **MS. BEHLING:** Yes.

21 **MR. GRIFFON:** That might be a way to make sure
22 we don't lose track of that one. I would argue
23 to change that to a 6.

24 **DR. ZIEMER:** The 7.2?

25 **MR. GRIFFON:** Yeah.

1 **MS. MUNN:** 'Cause that is a procedure issue.

2 **MR. GRIFFON:** It's -- it's still def-- you
3 know, it's...

4 **MS. MUNN:** Something needs to be done with the
5 procedure. It's the procedure, not the DR,
6 that's at issue.

7 **MR. GRIFFON:** Right.

8 **DR. ZIEMER:** You're suggesting that 7.2 be
9 categorized as a 6. A 6 currently talks about
10 site profiles, not --

11 **MR. GRIFFON:** No, it --

12 **DR. WADE:** Or procedures --

13 **DR. ZIEMER:** -- or procedures, okay. Yes. Is
14 that general agreement we'll go to a 6 then?
15 Okay.

16 Then down to 8.1, this, Stu, says that NIOSH
17 agrees with the finding and accepts.

18 Apparently didn't change the outcome, but --
19 okay on that? Okay.

20 8.2, this is a disagreement category. Well,
21 last column suggests there is agreement, but
22 the categorization says that there's a
23 disagreement.

24 **MR. GRIFFON:** 8.2?

25 **MR. HINNEFELD:** I think for consistency this

1 might be better called a 1. I mean we agree
2 that -- we agree that the dose was higher than
3 the reference cited, but since it was higher on
4 a less-than-50- percent case --

5 **MR. GRIFFON:** I think so, yeah.

6 **MR. HINNEFELD:** -- so, you know -- am I right?

7 **DR. ZIEMER:** Okay. That will be changed to a 1
8 then, NIOSH agrees. I wonder if the -- well,
9 in fact it says in the original response NIOSH
10 agrees.

11 **MR. GRIFFON:** Right.

12 **DR. ZIEMER:** 8.3 and -- 8.3(a) and (b), defer
13 to the Savannah River site profile. Any
14 objection?

15 **MR. GRIFFON:** Here we go again.

16 **DR. ZIEMER:** 8.4?

17 **MR. GRIFFON:** This is the same, the 1 --

18 **DR. ANDERSON:** 1 and 7, yeah.

19 **MR. GRIFFON:** -- 1 and 7 issue, I think -- 1
20 comma 7.

21 **DR. ZIEMER:** 1 comma 7. There is ultimate --
22 yeah, both sides have sort of agreed. We'll
23 change that one.

24 9.1, Stu, that one says NIOSH agrees --

25 **MR. GRIFFON:** I think this is your issue that

1 read it, Mike. (Reading) All communications
2 initiated or received by the Chair, NIOSH
3 and/or the audit contractor regarding the
4 scope, performance or activities of the audit
5 contractor will be copied to the entire Board.
6 The audit contractor shall prepare and
7 disseminate to the Board a written summary of
8 all telephone calls and meetings with NIOSH
9 regarding issues relating to contracting, scope
10 or performance.

11 **DR. WADE:** I do need to ask another question.
12 There are certain activities that I, as
13 technical officer on the contract, undertake
14 relative to rating the contractor's
15 performance.

16 **DR. MELIUS:** Uh-huh.

17 **DR. WADE:** I'm not sure if I can share those
18 with the Board. I -- I mean I need a
19 determination from the contracting officer as
20 to --

21 **DR. MELIUS:** Fine. I mean obviously we're not
22 trying to violate contracting rules.

23 **DR. WADE:** Okay.

24 **DR. MELIUS:** To the extent that information can
25 be shared, I mean I think that the fact that

1 you had such a call could be shared. To what
2 extent the content of that discussion can be
3 shared I think would be governed by, you know,
4 the rules of -- that govern contracting.

5 **DR. ZIEMER:** Perhaps a phrase could be added to
6 this first paragraph that would specifically
7 mention that those -- those activities which
8 are permitted by law -- because performance is
9 mentioned here, and in fact --

10 **DR. WADE:** I don't know if that's the same
11 performance as the performance I pass judgment
12 on.

13 **DR. ZIEMER:** Right. Right. Perhaps Liz can
14 assist us on item one here. Any issues there
15 from a legal point of view?

16 **MS. HOMOKI-TITUS:** No, I'm sorry, I was going
17 to comment on number two.

18 **DR. ZIEMER:** Okay. Let's get number one first.

19 **MS. HOMOKI-TITUS:** Okay.

20 **DR. WADE:** Arjun has a com...

21 **DR. ZIEMER:** Arjun?

22 **DR. MAKHIJANI:** Yeah, we were having a little
23 caucus here, Dr. Ziemer. I wondered if the
24 word "performance" would impact the
25 conversations that you earlier authorized

1 between SCA and --

2 **DR. ZIEMER:** No, I think anything --

3 **DR. MAKHIJANI:** -- NIOSH.

4 **DR. ZIEMER:** -- anything specifically
5 authorized by action is already authorized.
6 This would be -- I believe -- aside from those
7 items.

8 **DR. MAKHIJANI:** Thank you. Okay, no issues on
9 item one.

10 Item two, (reading) No approvals, changes or
11 directives related to task orders or procedures
12 may be provided by the Chair and NIOSH to the
13 audit contractor without first securing
14 concurrence from the Board for these approvals,
15 changes or directives in advance to the entire
16 Board. If three or more Board members raise
17 concerns or objections about the proposed
18 changes, then the Chairman shall convene a
19 meeting of the Board forthwith to review the
20 proposed changes.

21 So in this case we're talking about, for
22 example, if -- based on some circumstance --
23 the Chair said I believe the task order should
24 be modified in some way --

25 **DR. MELIUS:** Right.

1 **DR. ZIEMER:** -- or something of that sort --

2 **DR. MELIUS:** We have -- there've been
3 circumstances where the order -- priority has
4 been changed for particular tasks or parts of
5 particular tasks and so forth, really without
6 knowledge of the Board, and it -- I'm -- I'm
7 not sure to what extent --

8 **DR. ZIEMER:** Yeah.

9 **DR. MELIUS:** -- you were involved in those, Dr.
10 Ziemer, but --

11 **DR. ZIEMER:** No, I --

12 **DR. MELIUS:** -- but again, it was not -- again,
13 we're not objecting to what was done --

14 **DR. ZIEMER:** No.

15 **DR. MELIUS:** -- but just saying procedurally we
16 should be notified, and then if --

17 **DR. ZIEMER:** Right.

18 **DR. MELIUS:** -- a number of us raise --

19 **DR. ZIEMER:** Right.

20 **DR. MELIUS:** -- sort of --

21 **DR. ZIEMER:** In essence, this was the case in
22 Iowa, and in fact the Chair notified the Board
23 that day when -- when the decision was made to
24 make the change. So -- but there was not a
25 mechanism to say -- well, we did -- we did then

1 try to set up a telephone conference to --

2 **DR. MELIUS:** Uh-huh.

3 **DR. ZIEMER:** -- which took a couple of weeks.

4 **DR. MELIUS:** Yeah, that's the --

5 **DR. ZIEMER:** And that still could be the case

6 here. Forthwith, you know --

7 **DR. MELIUS:** Uh-huh.

8 **DR. ZIEMER:** -- when is forthwith?

9 **DR. MELIUS:** Yeah.

10 **DR. ZIEMER:** 'Cause we have to notify -- but

11 the intent is clear and I have no personal

12 problem with it. I think it's quite fine.

13 **DR. DEHART:** The question I had is how -- how

14 are we defining concurrence? Can that be done

15 with e-mail?

16 **DR. MELIUS:** Yeah.

17 **DR. DEHART:** Can we avoid all of us getting on

18 a telephone call? Can it be done quickly or is

19 -- or is it --

20 **DR. ZIEMER:** Well, we -- we cannot --

21 **DR. DEHART:** -- going to have to be

22 (unintelligible) *Federal Register*?

23 **DR. ZIEMER:** -- concur on things by e-mail, is

24 my understanding. We can't take actions

25 outside the public frame-- I believe that's

1 correct. Liz? So if -- if there were
2 something -- see, I don't know how we -- how we
3 obtain the concurrence without meeting.

4 **DR. MELIUS:** Well, what if we modify this and
5 take out "first securing concurrence" and just
6 say without first communicating these to the
7 Board?

8 **DR. DEHART:** I have no problem --

9 **DR. MELIUS:** And then -- and then if -- then
10 the thing would -- if three or four or more
11 Board members raise issues about -- in
12 relationship with the communication, it would
13 be in effect asking Paul to take the steps to
14 convene a meeting.

15 **DR. ZIEMER:** I think that -- and Liz is nodding
16 as -- she has --

17 **DR. WADE:** She's --

18 **DR. ZIEMER:** That was her issue, as well.

19 **DR. WADE:** Could I speak also to this one? And
20 this is to the -- to the spirit of the motion.
21 The actual instructions to the contractor would
22 come from the contracting officer. That's the
23 only person who can instruct the contractor as
24 to change in scope. I understand the Board's
25 intention that in my position you would not

1 want to see me initiate any action, and I
2 understand the spirit of it, just as you
3 understand that the actual instructions would
4 come from the contracting officer.

5 **DR. ZIEMER:** That's correct, approvals, changes
6 or directives -- I can't do any of those in any
7 event, but the -- so we need to change the
8 wording a little bit. I mean in essence I
9 think we talked about having -- let me use the
10 Iowa case where -- where we did ask SC&A to --
11 to begin work on that Rev. 1 -- was it the Iowa
12 case? I guess it was -- site profile. I
13 didn't direct them to do that. We asked the
14 contracting officer to do that on behalf of the
15 Board, so in essence yeah, it sort of becomes
16 our directive, but it's --

17 **DR. WADE:** Yeah, we understand the spirit of
18 it.

19 **DR. ZIEMER:** -- the spirit of it is... And
20 may-- maybe you can change the wording there a
21 little bit.

22 Other comments on item two?

23 (No responses)

24 Let me alert the -- let me alert the Board
25 members to one other kind of activity that

1 occurs -- or has occurred on a semi-regular
2 basis. Our contractor gets calls to the Hill
3 on a fairly regular basis to give reports to
4 staffers on the Hill of various things. John
5 has always contacted Wade and contacted me to
6 let me know of those requests, and has
7 basically said should I do this. And the
8 turnaround times are usually a day or two. Now
9 we would probably be better to have a formal
10 policy on this in the future. What I've done
11 in the past is said yes, do this. I mean it's
12 hard to turn those down. But I have raised the
13 question with Wade and asked him to raise it
14 with the contracting officer, these are outside
15 the scope of the tasks, and the question is
16 who's paying for that time for our contractor
17 to brief people on the Hill. Now yes, it's --
18 it's Federal money that's paying for the
19 program and so on, but in reality, those
20 resources that are used to do that come out of
21 the program. So -- and -- and frankly, you --
22 you will probably start to see some of these
23 requests 'cause they seem to come on a fairly
24 regular basis. In fact, there was one this
25 past week. People on the Hill want -- want a

1 briefing on -- on everything that they produce,
2 really.

3 **DR. WADE:** Now is it the sense of this motion
4 that we would bring those requests to the
5 Board?

6 **DR. MELIUS:** No, I think the sense would be
7 that those would be communicated to let --
8 there'd be a communication on it.

9 **DR. ZIEMER:** Right. And in general there's
10 very little response time --

11 **DR. MELIUS:** Right.

12 **DR. ZIEMER:** -- even if -- if I said yes, go,
13 and three Board members said I don't think you
14 should go, it's going to be too late.

15 **DR. MELIUS:** Yeah, right, and -- and --

16 **DR. ZIEMER:** So we'll -- we'll have to have a
17 policy --

18 **DR. MELIUS:** No, no, that's a communi--

19 **DR. ZIEMER:** -- in the future.

20 **DR. MELIUS:** To me it's a communication issue.
21 It's something that we have a policy of
22 allowing, I would think --

23 **DR. WADE:** Right.

24 **DR. MELIUS:** -- and --

25 **DR. WADE:** And I don't know the contracting

1 officer is going to -- is going to surrender
2 that prerogative anyway.

3 **DR. MELIUS:** No, I -- yeah.

4 **MR. GRIFFON:** Right.

5 **DR. ZIEMER:** Anything else? Jim, did you
6 revise item two in any way that --

7 **DR. MELIUS:** Yeah, I have -- and -- and let me
8 -- I have a question whether this first part's
9 right, that no approvals, changes or directives
10 related to task orders or procedures may be
11 provided through the contracting officer --
12 excuse me, let me do this right -- may be
13 provided by the Chair and/or NIOSH through the
14 contracting officer to the audit contractor?
15 Is that -- Lew, is that -- you think --

16 **DR. WADE:** It's okay. I mean it doesn't rule
17 out the contracting officer.

18 **DR. MELIUS:** No, no, I --

19 **DR. WADE:** That's fine.

20 **DR. MELIUS:** I think it covers the -- okay,
21 through -- without first communicating these
22 approvals, changes, directives in advance to
23 the entire Board.

24 So we've taken out concurrence there, and then
25 the second sentence there reads the same.

1 **DR. ZIEMER:** So after the words "audit
2 contractor" -- what follows that?

3 **DR. MELIUS:** Okay. No approvals, changes,
4 directives related to task orders, procedures
5 may be provided by the Chair and/or NIOSH
6 through the contracting officer to the audit
7 contractor without first communicating these
8 approvals, changes or direction -- directives
9 in advance to the entire Board.

10 **DR. ZIEMER:** Thank you. Any objections to
11 those -- that change? I'm not going to take a
12 formal motion on it. If there's no objections,
13 we'll consider that change a friendly
14 amendment.

15 Ready for item three? (Reading) All working
16 group and subcommittee members (sic), including
17 conference calls, involving NIOSH and the audit
18 contractor to review findings of the audit
19 contractor will include the participation of at
20 least two Board members. All Board members
21 will be notified about the meeting at least two
22 weeks prior to the meeting, and the Chair will
23 ensure that adequate representation is present
24 at the -- at the meetings. Such meetings shall
25 be noticed in advance to the public through the

1 e-mail list and on the web site and -- and open
2 -- to the public?

3 **DR. MELIUS:** Yeah, open to the public.

4 **DR. ZIEMER:** -- to the public, consistent with
5 the Government in the Sunshine Act. Such
6 meetings, including those by teleconference,
7 shall be transcribed.

8 Okay, any discussion on that, there -- it seems
9 to me that the two-week thing is pretty
10 limiting in some cases.

11 **DR. DEHART:** I was going to ask if NIOSH and
12 the contractor could comment whether or not, in
13 their experience, would two weeks have been
14 limiting.

15 **DR. ZIEMER:** In other words, if -- if you -- if
16 there -- if an issue arose and let's say that -
17 - that Hans needed to speak to someone at
18 NIOSH, does he have to wait two weeks or can he
19 say, you know, I need -- I need to discuss this
20 issue, we're working on something, if I can --
21 if I can schedule it and get some Board members
22 and get a notice out, is the two weeks that
23 critical?

24 **DR. MELIUS:** Well, I think we have to have
25 adequate time to notify the public and people

1 that have an interest in the -- in the
2 particular issue, so I think there needs to be
3 some time -- if I recall correctly when we were
4 dealing with some of the security issues, then
5 some of those meetings took place in pretty
6 short -- much shorter time frame because I
7 think Mark -- I was talking to Mark one day and
8 he suddenly got called the next day to go down
9 to Washington area, but in general I think we
10 should -- I mean if two weeks -- anybody feels
11 is too long, if one week is fine, but I think
12 we should at least strive for some time period
13 -- again recognizing that we may -- hopefully
14 would have some understanding ahead of time
15 that there would be situations -- like with the
16 security clearance issue and so forth where we
17 need to move faster and in general I think the
18 Board would be aware of that and
19 (unintelligible) but at the same time we don't
20 want to have the appearance that we're trying
21 to exclude, you know, the public from
22 participating or knowing about this and -- and
23 Board members. So if -- would prefer to change
24 it to one week, that's fine with me.

25 **DR. WADE:** But two weeks, if possible. I mean

1 -- you know.

2 **DR. MELIUS:** Okay, how about that?

3 **DR. ZIEMER:** At least two weeks, if possible?

4 **DR. MELIUS:** Yeah.

5 **DR. ZIEMER:** Which opens the door for a special
6 situation.

7 **DR. MELIUS:** Yeah.

8 **DR. ZIEMER:** Is that -- anyone object to that?
9 I -- I think flexibility there is important.

10 **DR. WADE:** I would like to ask a clarifying
11 question about this, as well. As we did on the
12 Mallinckrodt issue, there -- there -- it seems
13 to me there are times that there could be
14 telephone calls between NIOSH and the
15 contractor that wouldn't represent a working
16 group or a subcommittee meeting. Are we going
17 to rule out all such phone calls?

18 **DR. MELIUS:** No, I think we've not. At the
19 same time I think we do have to be careful
20 that, to the extent possible, we know about
21 those in general ahead of time. Like -- which
22 we did with Mallinckrodt. We authorized those
23 calls, but --

24 **DR. ZIEMER:** This is not a -- this only
25 pertains to official workgroup or --

1 **DR. MELIUS:** Correct, and --

2 **DR. WADE:** That's right.

3 **DR. MELIUS:** -- and we have to be careful that

4 these other types of calls don't --

5 **DR. ZIEMER:** And that they are recorded and --

6 **DR. MELIUS:** Right, right, and do that. But --

7 **DR. ZIEMER:** Okay, so it doesn't exclude those

8 exchanges --

9 **DR. MELIUS:** No.

10 **DR. ZIEMER:** -- if needed. If there's a

11 question on some point, what did you mean by

12 this phrase --

13 **DR. MELIUS:** Yeah, I -- I would think there'd

14 be --

15 **DR. ZIEMER:** Yeah.

16 **DR. MELIUS:** -- that kind of call or --

17 **DR. ZIEMER:** Okay.

18 **MR. GRIFFON:** I guess the --

19 **DR. MELIUS:** Or where is this proc-- you know,

20 I don't understand --

21 **DR. ZIEMER:** Or -- or how do we get this

22 document --

23 **DR. MELIUS:** -- this particular procedure, you

24 re-- you refer to, you know --

25 **DR. ZIEMER:** Right.

1 **DR. MELIUS:** -- 2(a) and I don't see this
2 listed --

3 **DR. ZIEMER:** Right.

4 **DR. MELIUS:** -- in 2(a), it's -- you know,
5 maybe it's in 3(b) or something, that kind of
6 thing is kind of --

7 **MR. GRIFFON:** I certainly understand the
8 intent, in two weeks where possible I think
9 would be good. I don't want to fall into a
10 situation where we're violating that all the
11 time. I don't know if we need to -- to parse
12 out -- because I think that the workgroup
13 conference calls can -- can -- we may not need
14 as much time for those. I mean I think -- I
15 think where possible is a good addition, and I
16 think it's much more important when people have
17 to physically go to Cincinnati or -- you know,
18 if they can dial in or be on a call, maybe less
19 notice is required, but I -- I'm just also
20 thinking about the flexibility of being able to
21 meet our deadlines. So -- but I guess where
22 possible covers us there.

23 **DR. WADE:** There is another clarification. The
24 meetings will be open to the public, and I
25 think that's fine. It doesn't necessarily mean

1 document? I guess that's my question. Very
2 often -- or can I call up someone at NIOSH?
3 EVA's -- is a contact point we have to get
4 documents. Very often we'll need help in -- in
5 arranging for meetings with site experts where
6 we are required to coordinate with NIOSH
7 whenever we do that. Is this -- fall within
8 this -- the term "performance"?

9 **DR. ZIEMER:** I don't think this --

10 **DR. MELIUS:** Not at all, no.

11 **DR. ZIEMER:** -- is the intent, no.

12 **DR. MAURO:** Thank you.

13 **DR. MELIUS:** That's...

14 **DR. MAURO:** Thank you.

15 **DR. ZIEMER:** Yeah. Okay, let's then vote. All
16 in favor of this motion, as amended, please say
17 aye.

18 (Affirmative responses)

19 Those opposed say no.

20 (No responses)

21 And those abstaining?

22 **MS. MUNN:** Aye.

23 **DR. ZIEMER:** One. The motion carries. I'd
24 like to determine whether Cori is here.

25 **DR. WADE:** I'm sure she's available.

1 charge to provide much of the administrative
2 support, a task that she has accomplished with
3 efficiency and effectiveness; and

4 Further, her efforts have been accomplished
5 with flexibility, warmth, humor and dedication
6 to the mission; and

7 Further, she has been available to advise and,
8 when possible, resolve issues to the members
9 who must travel with special needs and unusual
10 requirements; and

11 Further, during the meeting her presence has
12 been a source of assurance that even unexpected
13 events can be addressed toward the meeting's
14 success.

15 Therefore, be it resolved that the Board fully
16 assembled recognizes Ms. Cori Homer for her
17 superior administrative support and assistance
18 to individuals and the Board.

19 **DR. ZIEMER:** Is there a second to the motion?

20 **MR. ESPINOSA:** Second.

21 **MR. GIBSON:** I would -- I would second that
22 motion.

23 **DR. ZIEMER:** All in favor, aye.

24 (Affirmative responses)

25 (Applause)

1 are going to require a vote on, for Mike's
2 benefit?

3 **DR. MELIUS:** I have one that may, but I'm
4 hoping --

5 **DR. ZIEMER:** Okay. You may proceed.

6 **DR. MELIUS:** -- it doesn't.

7 **DR. ZIEMER:** Proceed.

8 **MR. GRIFFON:** SEC task order, too.

9 **DR. ZIEMER:** Oh, SEC task order.

10 **DR. MELIUS:** Yeah. I would just -- in -- one
11 of the issues that came up in the public
12 comment period was issues related to conflict
13 of interest. And while not commenting directly
14 on that -- particular issues that were raised,
15 but it did remind me about some issues where I
16 don't think we've been quite as vigilant about
17 dealing with this as (unintelligible) and
18 that's the issue of transparency. And I
19 believe it was about a month ago that I tried
20 to find SC&A's conflict of interest statements
21 on the web site and was unable to find it. And
22 I thought we've dealt with this before and I
23 don't know if it's been taken care of, but I
24 think we should try to make sure that it does
25 get taken care of so that those are available -

1 - so forth.

2 Related to that, I do wish that ORAU would make
3 theirs a little less difficult to find. Every
4 time I go to look at it -- which is not very
5 often -- and I have to hunt around quite a
6 while and it'd be nice if there was a link or
7 if NIOSH could consider, on their web page,
8 having some direct link -- statement where
9 people could go and find conflict of interest
10 statements.

11 And finally, something I think the Board should
12 consider is having our own conflict of interest
13 statements, also, up there. Not our financial
14 statements, but the conflict of interest
15 things, just -- again, for consistency and
16 transparency. I -- I think it would -- would
17 be helpful to have those available.

18 **DR. ZIEMER:** Ours can certainly be added, can
19 they not, to the web site on --

20 **DR. WADE:** I believe so.

21 **DR. ZIEMER:** I actually thought they were, but
22 where do we stand on SC&A and -- are we -- are
23 we talking about their web site or our web
24 site?

25 **DR. WADE:** Do you want the SC&A materials on

1 the NIOSH web site?

2 **DR. MELIUS:** I would just like some place where
3 it's easy to find, for people -- for claimants.
4 I mean, again, I was unable to find it. Now
5 maybe it's available on theirs and I --

6 **DR. WADE:** I don't know that John -- I don't
7 know, do you have such materials available on
8 your web site?

9 **DR. MAURO:** Our conflict of interest plan and
10 procedures of course has been delivered and you
11 folks have it and it has been finalized.

12 **DR. WADE:** Right.

13 **DR. MAURO:** That plan and procedure requires
14 certain forms to be filled out by everyone on
15 the project, and all those forms have been
16 filled out and are on file in hard copy at our
17 headquarters office. Certainly those could all
18 -- I do not believe you folks have copies of
19 those forms. That is the forms individually
20 signed by everybody on the project. And so --
21 but certainly if you require that, also, we --
22 provide you with that and that material could
23 be put on the -- provided electronically and,
24 if you care to, be placed on your web sites.

25 **DR. WADE:** Is it your suggestion that it be

1 placed on the NIOSH web site?

2 **DR. MELIUS:** Actually I think the Board had
3 requested that some time ago and maybe we -- it
4 was miscommunicated, but I certainly think
5 that's -- needs to be done in terms of
6 consistency and...

7 **DR. ZIEMER:** It could either be a link to our
8 web site to yours, if it's on the SC&A web
9 site, or it can be put on ours directly, I
10 suppose.

11 **DR. MAURO:** The actual forms, the hard copy
12 signed forms, and dated, by every participant
13 is in hard copy.

14 **DR. ZIEMER:** Yeah, okay.

15 **DR. MAURO:** We could of course get it into
16 electronic form and deliver -- deliver it to
17 you, or put it on our web site --

18 **DR. ZIEMER:** I don't know that we need the
19 signed forms on a web site. I think it's the
20 information --

21 **DR. MELIUS:** The information on the...

22 **DR. ZIEMER:** -- what are the -- the conflicts
23 or --

24 **DR. MAURO:** Well, we have a proc-- we have a
25 procedure that requires certain forms to be

1 filled out by each individual that would be in
2 effect testifying that they -- regarding all --
3 the conflict of interest requirements that
4 pertain to our contract, so it flows down from
5 our contract. For example, the main -- the
6 main provisions are that the individual has not
7 in the pa-- has -- does not -- the comp--
8 whether a subcontractor -- or there are several
9 --

10 **DR. ZIEMER:** Right.

11 **DR. MAURO:** -- but the big ones are did not
12 defend the government against claims in the
13 past. The other one is if the person's working
14 as a lead, let's say on the site -- the site
15 profile review, that they were not an employee
16 of that -- Savannah River, so they could work
17 on it as an expert, technical support expert,
18 but they cannot provide lead, so there are
19 several criteria --

20 **DR. ZIEMER:** Right.

21 **DR. MAURO:** -- and we -- those forms are filled
22 out, signed by the individual and they're on
23 file. And we keep a record of those -- actual
24 a separate form that says who has restrictions
25 and what their restrictions are regarding

1 working on the project. All this material is
2 on file in hard copy, and it certainly can be
3 made available to you folks in any form you
4 care to have it.

5 **DR. MELIUS:** Yeah, I -- I think the format that
6 ORAU follows and has used is -- was appropriate
7 in terms of what information -- the type of
8 information and level of detail and so forth.

9 **DR. ZIEMER:** Rich.

10 **DR. TOOHEY:** I'd just like to mention all the
11 ORAU forms are posted on our project web page,
12 which is www.oraucoc.org.

13 **DR. MELIUS:** Yeah. No, I -- I realize that. I
14 think the -- the issue I was raising was
15 getting to them -- understanding where to find
16 them, particularly for the site profile reviews
17 from the NIOSH web site, is not straightforward
18 and I -- so it's -- criticism wasn't of you, it
19 was of -- essentially asking NIOSH to -- to
20 make all this -- and I think we had something
21 saying, you know, here's the Board members,
22 here's how you find the -- the forms for ORAU
23 and here's how you find the forms for SC&A. I
24 think then we -- everybody's -- we're all
25 consistent, it's all available, that's all.

1 **DR. ZIEMER:** I don't think this requires a
2 formal action.

3 **DR. MELIUS:** Okay.

4 **DR. ZIEMER:** I think it's understood that we
5 all want the information out there. We'll make
6 sure it's pub-- publicly available. And if --
7 we can work with SC&A to make sure it's...
8 Let's see, the -- well, help the Chair out.
9 It's getting late in the day. What -- what did
10 I overlook?

11 **DR. WADE:** We want to do the SC&A task order --

12 **DR. ZIEMER:** Oh, SC&A task order, yes.

13 **DR. WADE:** The SC&A SEC task order. Let me
14 give you just a very brief report. You have at
15 your place a task order that was developed by
16 the Board. I transmitted that -- the
17 contracting officer has transmitted that to
18 SC&A and asked for a proposal from SC&A on this
19 material. It was sent on Monday, John. My
20 hope is that by the -- by the Board meeting in
21 August we should have the SC&A proposal, and I
22 would ask the Board to consider that proposal
23 at that time.

24 That would require us going into closed session
25 to look at the specific costs that will come

1 back to us, and I guess I just alert the Board
2 to that. And if there are any concerns the
3 Board has, let me know. It would require a
4 closed session that I would intend to schedule
5 for the August meeting.

6 **DR. ZIEMER:** Right. And this -- this task
7 order -- did we approve the content of this at
8 a prior meeting. Is this verbatim?

9 **DR. WADE:** Yes, it's the mat-- it's the
10 material that was provided to me.

11 **DR. MELIUS:** I have a question on that, and it
12 may be that -- it is late and maybe -- I don't
13 recall, but item number two, did we ask the
14 contractor to develop and draft Board
15 procedures? Or proced-- I mean for them to
16 develop draft procedures for the review, but
17 are they -- I mean the -- implies here they're
18 -- they're developing our -- the Board's
19 procedures.

20 **DR. DEHART:** I guess we did.

21 **DR. MELIUS:** We're asking them to do our own --
22 I mean it...

23 **MR. GRIFFON:** Well, I guess -- I guess the
24 intent was to draft procedures that -- that we,
25 along with our contractor, would use to review,

1 but ultimately we have to approve those
2 procedures. So I -- I know it's kind of funny
3 wording, I think, but --

4 **DR. MELIUS:** That -- that's the intent, fine.
5 I just --

6 **MR. GRIFFON:** Yeah. Yeah.

7 **DR. MELIUS:** -- it sort of looks -- it struck
8 me when I read this that --

9 **MR. GRIFFON:** I mean --

10 **DR. MELIUS:** -- sort of --

11 **MR. GRIFFON:** And I think draft implies that
12 they supply it to us and then we -- we can
13 change the lang-- you know.

14 **DR. MELIUS:** That's sort of like telling us
15 what to do to tell them what to do. I mean it
16 just looks a little... Okay, I understand.

17 **DR. WADE:** But to complete the --

18 **DR. ZIEMER:** This is verbatim from what we
19 approved? I -- I honestly don't remember that
20 part of it, either.

21 **DR. WADE:** Well, yes, in my -- it's my hope
22 that it's verbatim. I mean Mark wrote it,
23 so... I, on your instruction, have developed
24 an independent government cost estimate that
25 I've provided to the contracting officer. But

1 again, you'll see the proposal and we'll
2 discuss the proposal in closed session.

3 **DR. ZIEMER:** And actually I think we'll have
4 the opportunity to -- we -- we can reword this
5 slightly if it's not what we want, or -- or we
6 can say we're not actually going to task you to
7 actually do our procedures.

8 **DR. MELIUS:** I think my concern was somebody on
9 the outside looking at this is going to say
10 what is this Board doing, you know, telling the
11 -- you know, again, asking a contractor to tell
12 us what to do to tell them what to do. This
13 whole -- something's not --

14 **MR. GRIFFON:** Yeah, you --

15 **DR. MELIUS:** -- quite right there.

16 **MR. GRIFFON:** -- (unintelligible) you know the
17 intent (unintelligible).

18 **DR. MELIUS:** Yeah, I don't (unintelligible).

19 **DR. ZIEMER:** Yeah, I -- I think I thought the
20 intent was they would draft procedures on how
21 they would review the petitions on behalf of
22 the Board.

23 **DR. MELIUS:** Yeah. Yeah.

24 **DR. WADE:** Okay. So that's the status of
25 the...

1 **DR. ZIEMER:** Okay, this requires no action
2 today, however.

3 **DR. WADE:** Right. There is one other item that
4 I -- I brought to you last time and that is to
5 get a sense of the work you would like to task
6 SC&A with next year.

7 **MR. GRIFFON:** Can -- can we -- I'm sorry, just
8 to go back to the last item, but one question
9 on a closed session. Is there any way -- I
10 know we've brought this up before, but I don't
11 even know if we'll have any of this information
12 beforehand, but I think this is critical to get
13 this moving. I mean it's -- in my mind, I
14 thought we would have been having a closed
15 session by now to approve the proposal, but is
16 there any way to expedite this by having a
17 phone session? I know we've asked this before,
18 and I don't -- I think the answer is that we
19 cannot have a closed session on phone.

20 **MS. MUNN:** That's what we were told.

21 **DR. ZIEMER:** There was a -- the issue of -- of
22 assuring the privacy of the...

23 **DR. WADE:** SC&A has recently received this.
24 They have a month to prepare, so it --

25 **MR. GRIFFON:** Oh, okay.

1 **MS. BEHLING:** Okay. Can you hear me?

2 **DR. ZIEMER:** Yes.

3 **MS. BEHLING:** All right. So good afternoon.
4 I'm Kathy Behling with SC&A and I appreciate
5 having an opportunity to present an overview of
6 our findings of the second set of 18 cases --
7 case reviews.

8 Since submitting our report to the Board on May
9 9th of this year, we've conducted and we've
10 held discussions with the two-member Advisory
11 Board teams regarding findings associated with
12 their assigned cases. I think we've contacted
13 most everyone on the Board.

14 We've also met with NIOSH on May 31st in
15 Cincinnati to discuss their findings -- to
16 discuss our findings of these cases, and we,
17 during that meeting, attended a -- attended a
18 two-day familiarization training on the work
19 books at the ORAU facility. And I'll get into
20 that discussion a little bit further -- a
21 little bit later.

22 We also or I also initiated generating the
23 matrix for the second set of 18 cases, which I
24 have submitted to Mark and I'm sure Mark and I
25 will be working over the next few weeks to

1 compile the matrix and submit that to the Board
2 within a few weeks.

3 I'd like to start by just explaining to you
4 SC&A's approach to doing dose reconstruction
5 reviews, and this approach parallels what the -
6 - the Board-approved statement of work to SC&A
7 when we started this project.

8 And there's three key elements that we look at.
9 First of all we review all of the data that's
10 collected for the case and we assess those
11 records for the completeness and adequacy for
12 use in estimating doses.

13 Second we look at internal and external doses,
14 and we first of all take the IREP input sheets
15 and we attempt to reproduce all of the doses
16 assigned by the dose reconstructor. As you
17 heard earlier as we were going through the
18 matrix for the 20 cases, I'm sure there were
19 times you questioned why we cited certain
20 issues, but one of the things we do try to do
21 is reproduce each of those doses. Even if
22 there's only minor chan-- or differences in
23 what we reproduce and what the dose
24 reconstructor reproduces, we do cite that or
25 bring that to the attention of NIOSH.

1 We assess whether the dose reconstructor
2 estimated those doses based on the appropriate
3 procedures and guidance documents, and whether
4 that dose reconstructor understood and complied
5 with the applicable procedures. We also
6 lastly, under the dose estimate review,
7 evaluate whether the assumptions used in the
8 dose reconstruction to estimate doses are fair,
9 consistent and well grounded in the best
10 available science, as stated in the
11 regulations.

12 And then lastly, we look at the Computer-
13 Assisted Telephone Interview to evaluate
14 whether NIOSH has addressed all of the work
15 histories, the monitoring and work practices,
16 and incidents and events that were discussed or
17 that were addressed or discussed by the
18 claimant. If there's any other documentation
19 that's available from the claimant, we also
20 look at that information and review -- or
21 determine whether NIOSH did address anything
22 else that the claimant may have provided.

23 Now this next slide, here's something you have
24 seen quite a few times. This has become a
25 reoccurring theme during this meeting, but

1 because of the importance of understanding
2 NIOSH and ORAU's approach to the dose
3 reconstruction process, I'm going to repeat it
4 one more time.

5 Initially when NIOSH sits down and starts to
6 look at a case they have a group of individuals
7 that screen these cases and prejudge or
8 categorize them into one of these three --
9 these three categories. And this is important
10 to the dose reconstructor because she or he
11 will use different procedures or different
12 steps in the procedure based on what category
13 that case falls under.

14 Specifically -- and I won't belabor this
15 because, as I said, I know you've heard this
16 many times over the last two days -- but the
17 minimizing approach is an approach that is used
18 when it's determined that there's most likely
19 enough data available that the dose
20 reconstructor does not need to possibly
21 complete the entire dose reconstruction. It's
22 considered an underestimating asses--
23 assessment because the -- even with the partial
24 data, the POC will be greater than 50 percent.
25 And once they've determined that the POC is

1 greater than 50 percent, they can stop the dose
2 reconstruction process.

3 The second case, the category two, is the
4 maximizing or overestimating -- yeah,
5 overestimating approach which, again, uses very
6 conservative and overestimating claimant-
7 favorable -- sometimes excessively claimant-
8 favorable -- approaches to the dose
9 reconstruction.

10 And in the third category is the best-estimate
11 approach, which obviously is going to look at
12 more site-specific data and attempt to use
13 information that's as scientifically defensible
14 as -- as the information will allow.

15 Now this table provides you a list of 18 cases.
16 And as you can see, these 18 cases are
17 represented by 13 sites, by eight types of
18 cancers and a range of POC values. Typically
19 they're a little bit higher range of values.

20 And I'm going to once again explain to you, in
21 each of these cases I looked at that particular
22 case -- and you can review these in your tabs,
23 and I make examples of the tabs as we go along.
24 The -- when you see maximizing external, that
25 means that in this particular case on tab 21

1 the dose reconstructor used maximizing
2 assumptions. And if I can give you an example
3 in tab 21, it just so happens that they in that
4 case used -- they took the reported and missed
5 annual doses and they multiplied it by a
6 standard correction conversion factor of two,
7 implementing the ORAU-TIB 8 guidance document,
8 and they also took an organ dose correction
9 factor of -- they also multiplied organ dose
10 correction factor of 1.244 and applied that to
11 a 30 to 250 keV photon dose for all years of
12 employment. So it gives you an idea of the
13 type of overestimating assumptions that are
14 applied in these maximizing external dose
15 cases.

16 And I indicate here also the hypothetical
17 internal dose. The -- ORAU has a procedure,
18 OTIB 2, which is the maximizing internal dose
19 estimates for certain DOE complex claims. And
20 this is often used by the dose reconstructor or
21 typically used by a dose reconstructor in a
22 maximizing case. And what this procedure
23 allows the dose reconstructor to do is he has a
24 maximum -- a maximum internal dose calculation
25 work book, and he can select whether that

1 worker was -- worked at a facility that had a
2 reactor, and in that case this work book will
3 automatically generate the internal dose
4 associated with 28 radionuclides and that's
5 what gets entered into IREP.

6 The dose reconstructor can also select a model
7 that is a non-reactor site, and that looks --
8 that then takes into account 12 radionuclides.
9 This approach of using a hypothetical internal
10 dose is only used in maximizing cases where
11 you're not going to compensate because it is a
12 very ov-- very conservative assumptions built
13 in.

14 One of the other things I'll point out here, I
15 think tab 26 I mention, rather than a
16 hypothetical internal, it's an overestimated
17 internal. In that particular case that was an
18 Iowa case that we had looked at a ways back and
19 that case they used -- the technical -- the
20 Technical Basis Document which specifies how to
21 -- how to calculate internal dose using an
22 overestimating approach, so that's why I
23 differentiated between hypothetical internal
24 because in that particular case they did not
25 use the TIB 2 guidance document.

1 Tab 34 (sic) you'll see a partial dose
2 reconstruction which was based on external
3 dose, and that's the category one, which is the
4 minimizing or underestimating dose. They could
5 utilize -- in that particular case the dose
6 reconstructor was able to reach a POC value of
7 greater than 50 percent by just estimating the
8 external dose, and so that particular case was
9 compensated, both tab 33 and 38.

10 Now the only one I haven't touched on is tab
11 27, 28 and 30 where you see a best-estimate
12 external dose. In this particular case -- this
13 is a very good example of a case where the dose
14 reconstructor started using a maximizing
15 approach for this dose reconstruction. He or
16 she must have realized that using that
17 maximizing approach and using a hypothetical
18 internal dose assessment the dose
19 reconstruction -- dose reconstruction resulted
20 in a POC value of greater than 50, and the
21 procedures that are used in these maximizing
22 exposure scenarios and approaches cannot be
23 used to compensate. And so therefore this --
24 those three cases had to be reclassified and
25 re-- and reworked. The external dose had to be

1 reworked using external -- using a best-
2 estimate. And once they calculated the
3 external dose using a best-estimate approach,
4 the POC was below 40 percent.
5 Okay. Now the next slide, I've taken these 18
6 cases and I've -- using the criteria -- the
7 approach that SC&A uses in evaluating each of
8 the cases, I identified the number of findings
9 for each of those different categories by case.
10 And as you can see, the external dose is the
11 overwhelming majority of -- area where we have
12 findings, actually represents about 83 percent
13 of the total findings of 113 findings.
14 Within that -- that column of external dose,
15 the -- over 50 percent of that dose is
16 represented by the tabs 27, 28 and 30, which as
17 I mentioned in the previous slide were the dose
18 reconstructions that were conducted using the
19 best-estimate approach. The reason there are
20 so many findings under external dose for the
21 best-estimate approach because as we began
22 working on reviewing these case, we realized
23 that the dose reconstructor had used a work
24 book. And at the time, SC&A was not aware of
25 the use of these best-estimate work books that

1 employ Monte Carlo methods. And so we sat down
2 with the procedures and we could not reproduce
3 the numbers that the Monte Carlo methods had
4 produced. We couldn't reproduce the
5 uncertainties using the procedures, although I
6 will tell you we got close in some instances.
7 So that is why there are so many findings
8 associated with those three tabs. It had to do
9 with us not being aware of the work books.
10 Since then we have -- as I mentioned earlier,
11 we have had a two-day familiarization training
12 on the work books, and I'll discuss those a
13 little bit later.
14 Okay, this chart took those 18 cases and the
15 113 findings and I broke down those findings
16 based on -- categorized those findings to give
17 you an understanding of what those findings
18 really represent. And I'm going to start with
19 the top, the review -- reviewer could not
20 reproduce assigned dose, which is what I just
21 discussed. The reason we couldn't reproduce a
22 lot of the assigned dose was the use of these
23 work books, and I'm going to go
24 counterclockwise (sic) and try to give you some
25 examples of each of these cases -- of each of

1 these categories.

2 The second category is the procedure used to
3 estimate doses was not referenced. Again, this
4 goes back to the -- a lot of the cases that
5 fell under this category goes back to the three
6 cases, tab 27, 28 and 30, because based on what
7 the dose reconstruction report told us as to
8 how that dose was reproduced, we could not --
9 we could not reproduce that dose and therefore
10 we had to assume that there was -- that these
11 procedures were not properly referenced and
12 because the work books are not referenced in
13 the dose reconstruction report.

14 The next category is procedures error --
15 procedural errors and inconsistencies, which
16 represents four percent. And I won't belabor
17 this one because I think Hans spoke to this
18 issue earlier today and had -- gave you quite a
19 few examples. I can point out tab 37 and
20 various tabs that do have some procedural
21 inconsistencies. If you want to go to those
22 tabs and look specifically at those findings,
23 tab 37 would be one example.

24 The only other issue I will bring up under the
25 inconsistency -- it just happened we had two --

1 we were -- we were working on an Iowa case and
2 we were also working on a Paducah case, and in
3 both instances this -- this points out a con--
4 an inconsistency that Hans didn't necessarily
5 discuss earlier, but we took notice that in the
6 Iowa Technical Basis Document there was a dose
7 estimate for the lumbar spine, which
8 recommended a dose of 330 millirem to the
9 colon. And when we compared that to the dose
10 that is recommended for the -- in the TBD for
11 the Paducah site, they recommended 2.9 rem for
12 that same lumbar spine dose estimate to the
13 colon and there's an area of inconsistency that
14 is rather significant and -- and we could not -
15 - you know, could not come to an understanding
16 on why that was.

17 The next area is unresolved CATI issues. As I
18 said, one of our areas of review is looking at
19 the CATI report and trying to determine if
20 NIOSH looked at all the data provided in that
21 report and attempted to resolve any incidents
22 and include any -- any of that information in
23 the dose reconstruction. In this particular
24 case we have a fairly low -- fairly low
25 incidence of unresolved CATI issues at six

1 percent.

2 The next item is the data collection issues and
3 here is also a very small incidence of
4 findings. And typically this again will go
5 back to a CATI issue. An example is tab 36,
6 which the -- the finding is associated with the
7 data collection relative to the -- a CATI
8 issue. In this case NIOSH -- DOE's reply to
9 NIOSH's initial request for an incident
10 investigation record -- report failed to
11 acknowledge whether the data -- there's a form
12 that the -- NIOSH includes with any
13 documentation it sends back, and it must
14 indicate on that form whether the data was not
15 readily available or if the data did not exist.
16 And in this particular case, NIOSH had
17 requested an incident report from DOE.
18 However, they didn't send any information back
19 and they didn't indicate whether the data was
20 actually available or if it did not exist. So
21 it just raised a red flag in our mind as to
22 whether the -- all the data was actually
23 collected.

24 Now this next category is misinterpretation of
25 procedures or procedural noncompliance. And

1 again, I won't belabor this issue because Hans
2 addressed this earlier. Misinterpretation of
3 procedure goes back to these two procedures
4 that we routinely see the dose reconstructor
5 being confused by, and that's the TIB-8 and
6 TIB-10 procedures, which -- the TIB -- these
7 are both standard complex-wide conversion
8 correction factors for overestimating external
9 dose, either associated with TLDs or with film
10 badge dosimeters.

11 An example of procedural noncompliance is -- a
12 good example is one we talked about earlier,
13 also, and that was the issue of rarely or if --
14 I don't think we've ever seen a case where the
15 dose reconstructor has recorded dose and has
16 actually attempted to determine what that
17 uncertainty is based on the guidance provided
18 in the Implementation Guide 001. It's just, as
19 Hans indicated, too complex. And so I
20 considered that a procedural noncompliance
21 issue.

22 Moving on, the inappropriate procedure, method
23 or assumption used, there 14 percent of our
24 cases -- of our findings fell under that
25 category. An example of that would be tab 22.

1 In fact, tab 22 has three findings that fall
2 under this category. The first one is -- there
3 was what we considered an inappropriate
4 assumption used for calculating missed doses
5 where -- again, I think this is something we
6 talked about during the matrix. In this case
7 the dose reconstructor assumed 12 cycles per
8 year rather than a quarterly -- quarterly badge
9 exchange. And as we noted when we went through
10 the matrix on the first 20 cases, we cite
11 issues that are not only underes-- overestimate
12 -- or underestimates but also overestimates
13 because we're trying to look at issues that --
14 we're trying to ensure that these dose
15 reconstructions are done in a consistent manner
16 and also done in a scientifically sound manner.
17 In fact, that leads to the next category -- oh,
18 let me finish the -- let me go back to tab 22
19 and finish the other two findings associated
20 with the inappropriate procedures, methods and
21 assumptions.

22 The second finding under tab 22 was the use of
23 an inappropriate procedure for estimating
24 electron doses, at least based on our
25 understanding of the procedures. And the third

1 issue was that the dose reconstructor selected
2 an LOD value that we could not verify based on
3 the Technical Basis Document, based on complex-
4 wide procedures. We don't -- we were not con--
5 we could not convince ourselves where he -- he
6 or she got that LOD value, so that particular
7 tab identifies three findings that fall under
8 that type of category.

9 The next category is model or assumption
10 selection is not scientifically sound. And
11 here again at tabs 36 and 37 are good examples
12 where the findings that fall under this
13 category are typically obviously excessive
14 overestimations of dose that cannot be
15 justified based on efficiency, and they lack
16 scientific merit. For example, the
17 hypothetical internal dose model that we were
18 talking about, when the dose reconstructor
19 selects a model for the hypothetical internal,
20 they'll often select that highest non-metabolic
21 organ, which was the colon, and in some cases
22 they will -- even though the -- the actual
23 organ of interest would be available for them
24 to select, as opposed to selecting the highest
25 non-metabolic, which is the colon.

1 And in addition, they'll often select the 28
2 radionuclides, which are associated with
3 facilities that have reactors, as opposed to
4 when the individual actually worked at a non-
5 reactor facility they could have selected the
6 12 radionuclides, which will give a lower dose.
7 And so we do cite that as a finding.
8 Then the last category is the dose
9 reconstructor did not consider all potential
10 sources of exposure or the exposure was not
11 properly accounted for. And as is obvious
12 based on the title of this, in most cases these
13 are generally underestimations of dose and
14 they're due to judgments typically by the dose
15 reconstructor. An example would be in tab 23
16 of our report. In that particular tab the dose
17 reconstructor did not assign any missed neutron
18 dose for that particular case. And based on
19 the work locations that the individual worked,
20 we felt that it would have been appropriate to
21 assign neutron doses.
22 (Unintelligible) see a -- oh, okay, an example
23 of exposure not properly accounted for is al--
24 can also be seen in tab 21 where the dose
25 reconstructor considered occupational medical

1 exposure. However, he only -- he or she only
2 considered it for one year of employment rather
3 than an annual X-ray throughout the employment
4 period. And so that -- in tab 21 gives you
5 another example of exposures not properly
6 accounted for.

7 Then finally, to give you a complete picture of
8 the breakdown of these findings for the first
9 38 cases that we've reviewed, I've compiled --
10 I've added to the second set of 18 cases the
11 findings from the first set of 20 cases and
12 reproduced this chart. And as you can see,
13 there's really very little difference. There
14 was one category added, which is a
15 calculational error category where I think we
16 discussed that this morning in the 20-case
17 matrix where there was an input value into IREP
18 that was an error -- calculational error that
19 was put in there. But as you can see
20 throughout these first 38 cases, most of the
21 types of findings are very consistent.

22 So in summary, I believe that the root cause of
23 a lot of these findings have to do with
24 procedural issues. The -- as Hans discussed
25 this morning, the procedures are somewhat

1 ambiguous. It's obvious that the dose
2 reconstructors in some cases are having
3 difficulty following them. There are
4 overlapping procedures and sort of competing
5 procedures. It gives the dose reconstructor
6 numerous options as to how they want to go
7 about calculating the dose.

8 A good example -- well, an example of various
9 options that can be used is -- can be seen in
10 our tab 27. The -- in that particular case I
11 believe we've included a table that indicated
12 the variations of calculating the on-site
13 ambient doses and the -- the Technical Basis
14 Document gives you about three or four options,
15 plus you have other procedural options. And
16 when you get right down to it, the dose
17 associated with those options -- there's very
18 little difference in the dose and, again, this
19 is one of those issues that does not seem to
20 comply with an efficiency or timeliness
21 process.

22 The third root cause finding under the
23 procedures is procedure inconsistencies and
24 errors which, again, Hans discussed this
25 morning and I won't belabor that.

1 Another category of what we consider root cause
2 findings are judgments or assumptions that are
3 made by the dose reconstructors. As I pointed
4 out, there are -- failure to consider all
5 potential sources of exposure -- it's typically
6 a judgment issue. The dose reconstructor reads
7 -- or looks at all of the documentation and
8 where the individual works, and in a lot of
9 cases we feel he -- he or she should have
10 considered neutron doses when maybe they
11 didn't, or should have considered additional
12 missed photon dose. It's -- it's just an issue
13 of -- of a -- of a judgment call by the dose
14 reconstructor which differs from what we think
15 would be a more appropriate judgment.
16 Again, failure to properly account for all
17 doses. I gave you an example of that.
18 Selection of model and parameters that are not
19 scientifically sound. In this particular case
20 it results typically in an un-- an
21 overestimation of dose, but we still feel that
22 based on what is required under the regulations
23 that the dose reconstructor should be
24 consistent and scientifically sound in making
25 their judgments when it doesn't necessarily

1 impact efficiency. And many of the procedures
2 do have tables and appendices that allow that
3 dose reconstructor to select line items such as
4 the example that I use, as opposed to -- when
5 they're calculating an internal dose as opposed
6 to using the colon, they do have the option of
7 using a prostate or a breast as the organ of
8 interest, which may be the actual -- they
9 should select the actual organ of interest for
10 that particular case in -- in our way of
11 thinking, even if that is a less claimant-
12 favorable dose that results.

13 And lastly, the selection of inappropriate
14 procedures or methods for assigning doses, and
15 I believe this speaks back to the procedural
16 issues. And once we go through our iterative
17 process of trying to identify inconsistencies
18 and clarifying the procedures, this may be an
19 item that will -- where we'll see a reduction
20 in the findings.

21 Now I -- one of the things I wanted to point
22 out throughout this is -- to date, the impact
23 of the dose reconstruction audits that we have
24 done -- the majority of these dose
25 reconstructions, in fact the large majority,

1 have been maximizing approaches to dose
2 reconstructions. And therefore, even if we
3 find areas where we feel there was missed
4 photon dose, a missed neutron dose that wasn't
5 accounted for, it has very little impact on the
6 potential for affecting a change in
7 compensability because this approach cannot be
8 used for compensation. If that dose were to be
9 considered, if -- if NIOSH agrees, as in one
10 particular case we -- they did agree that there
11 may have been some neutron dose that wasn't
12 accounted for. However, if that would have put
13 that dose reconstruction over 50 percent, the
14 dose reconstructor would have had to go back
15 and reclassify that particular case as a best-
16 estimate approach and they would have attempted
17 to -- usually they'll start to go into --
18 they'll first of all go into the external dose
19 because it's a little bit easier to refine that
20 dose. And if that gets that particular case
21 below the 50 percent -- to 50 percent, then
22 that -- that will be adequate for that dose
23 reconstructor. He can stop at that point. But
24 it's important for you to understand that
25 currently the impact that our audits have had,

1 although they have not changed -- they have not
2 impacted changes in compensability, I think
3 they have still pointed out areas where the
4 procedures need to be clarified and there is
5 some room for the -- for improvement.
6 Now when we start getting into cases that are
7 much -- that -- that -- where the do-- the dose
8 reconstruction is being -- is -- is being done
9 using best-estimate approaches, then I believe
10 that our findings may be more significant.
11 Now with that being said, we have had
12 familiarization training on the work books and,
13 based on our understanding of those work books,
14 it appears that NIOSH is preparing for doing
15 more of the best-estimate doses. And the work
16 books utilize a lot of the information in the
17 site profiles and allow that dose reconstructor
18 to take a work book and the -- a lot of the
19 site-specific information that comes from the -
20 - from the Technical Basis Document is part of
21 that work book and will possibly help to
22 eliminate a lot of the misinterpretation of
23 procedures that we're seeing in our -- in a lot
24 of our findings.
25 However, it's important to note that SC&A or --

1 or -- there's only 2.5 percent of the dose
2 reconstructions are expected to be audited as a
3 part of this task four, so therefore it is
4 important that we take corrective actions in
5 behalf of the other 97.5 percent of the claims.
6 And I believe that sum-- that summarizes my --
7 and if you have any questions, I'd be happy to
8 answer them or if Hans wants to -- I don't know
9 if Hans wants to add anything to my
10 presentation. Okay.

11 **DR. BEHLING:** Yeah, just as a comment, I think
12 Kathy just summarized it in a final slide, the
13 impact of our findings -- and of course they
14 were quite a few -- seem substantial, but right
15 now we all know that the maximized doses are
16 very much immune to -- to errors because
17 there's so much fat built in there. I think
18 Kathy tried to summarize this in one of the
19 particular cases where we feel that in one
20 instance the missed neutron dose may have
21 amounted to about 12 rem, possibly, if you were
22 to collate all of the missed neutron doses, et
23 cetera.

24 On the other hand, that particular case had a
25 hypothetical internal dose of about 15 rem, and

1 of course this person had no indication of
2 having been exposed. There was no data on
3 internal exposure from bioassay data. So had
4 that additional neutron dose pushed him over
5 the limit, the first thing that would have
6 happened is that -- well, I guess we're going
7 to have to take away your hypothetical, so we
8 would have ended up with the same dose as we
9 would have without the correction. And this is
10 the -- the immunity of maximized doses from any
11 findings. The -- the real test of dose
12 reconstruction in terms of precision and
13 accuracy will come when we deal with best-
14 estimate doses.

15 **DR. ZIEMER:** Thank you. Thank you, Kathy.

16 **DR. WADE:** Yes.

17 **DR. ZIEMER:** I -- thank you very much. One
18 comment, in the future -- it might be helpful
19 if we do some of these pie charts in the future
20 to be consistent both with color and location.
21 It would be much easier to -- it's a little bit
22 --

23 **MS. BEHLING:** I meant to apologize for that. I
24 realized that afterwards, I --

25 **DR. ZIEMER:** You're aware of it then. Thank

1 you.

2 **MS. BEHLING:** I do apologize. I should have
3 kept them consistent.

4 **DR. ZIEMER:** They're very colorful, however.
5 Gen Roessler.

6 **DR. ROESSLER:** I have a comment and then a
7 question. My comment is that I attended the
8 subcommittee meeting in Cincinnati recently
9 when these cases were presented, and I was
10 really impressed with the procedure. I think
11 this is a very effective way of looking at the
12 audit summary of the dose reconstructions, and
13 then hearing NIOSH's interaction, it just seems
14 very effective and I think a lot can be learned
15 from this.

16 My question I think is directed toward Mark.
17 As I sat there at the meeting and went through
18 the big notebook and saw the amount of detail
19 that went into the review of these dose
20 reconstructions, I kept thinking what's going
21 to happen with the advanced dose
22 reconstructions? What more is going to be
23 done? And I went back to when this was all
24 defined and I think one of the things that will
25 happen with the advanced is that the contractor

1 will do more searching for data to see if
2 there's any data that's missing. But then what
3 else is going to happen? Can -- can you
4 enlighten me, Mark?

5 **MR. GRIFFON:** I'm -- I'm not sure. I mean one
6 -- one cri-- I think one part of it -- I'd have
7 to look back at the scope myself, but one part
8 I think is the -- the data question. Verifying
9 the source data I think was -- was one area
10 where we expected that. I -- I think -- you
11 know, we -- we've -- some of that is happening
12 in site profile reviews, so there might be some
13 overlap there, too. But I -- I think that's
14 one area. I think the -- I think the best
15 estimates, as Kathy described, will be the more
16 extensive reviews, just by their nature 'cause
17 they're more detailed assessments. But I'm not
18 sure ex--

19 **DR. BEHLING:** Yeah, let me --

20 **MR. GRIFFON:** -- how much we're going to add
21 onto an advanced review in reality, you know.

22 **DR. BEHLING:** I think the real test for the
23 auditor will come in looking at the internal
24 doses. Right now most of the internal doses
25 have been relegated to the hypothetical 12 or

1 28 radionuclides, which is a simple code that
2 we run. We look at the numbers, we say yes,
3 these are -- and the only findings we had up to
4 this point in time is the use of a surrogate
5 colon organ when in fact they should have used
6 let's say the rectal tissue, which is the issue
7 -- the tissue of interest and so forth. But in
8 the future when best estimates will have to
9 address internal exposure, we're going to have
10 our work cut out, as well as of course NIOSH
11 will. When you look at urine data, when you
12 look at chest counts, when you look at whole
13 body counts and you have a guy who's worked
14 there for ten, 20 years and you're trying to
15 assemble his bioassay data and make sense of
16 it, there's going to be a lot of subjective
17 thinking here. And -- and the IMBA code is not
18 as prescriptive as might be. There's a lot of
19 room for judgment here, and of course we'll
20 have to look at this and saying is this a
21 claimant-favorable judgment, how do you
22 interpret your bioassay data, is it done in a
23 claimant-favorable way. This is going to
24 escalate by orders of magnitude in terms of
25 sophistication, both for the dose

1 reconstructors as well as for the auditor.

2 **MR. GRIFFON:** I -- I guess another way -- I'm --
3 -- I'm just reflecting on Kathy's presentation
4 and one possible example where the advanced
5 review might differ in this case is that that
6 form that they found where they -- it was a
7 data request to DOE about an incident report,
8 and there was no indication as to whether it --
9 you know, they didn't get the document, but it
10 wasn't clear whether it was available and not
11 provided by DOE or it wasn't available. And I
12 think on that kind of -- that might -- in an
13 advanced review we might ask SC&A to say --
14 follow through on that and see -- you know,
15 what -- was it one or the other, what happened
16 to that and is it available and would it have
17 impacted the case. So I guess if I had to draw
18 an example -- but I think Hans is right, too,
19 on the -- on the best estimates I think we're
20 going to get into more of the internal dose
21 questions where you have to...

22 **MS. BEHLING:** And if I can just interject, yes,
23 these first 38 cases have been basic reviews.
24 But as I started out by saying, we do try to
25 reproduce all the doses and we sit down

1 initially with the IREP input forms. And to
2 reproduce the dose, you need to go through this
3 extensive process.

4 I believe that in addition to -- in the
5 advanced reviews, which is our next set of 22
6 cases, as Mark indicated, we have a little bit
7 more latitude to possibly go to or contact the
8 DOE facility to try to get documentation that
9 NIOSH maybe did not get.

10 I also believe there's a little bit more
11 latitude with regard to information that we may
12 find in the CATI reports. I believe we can
13 possibly contact coworkers or if there's a
14 discrepancy there we -- we can go a little bit
15 further with the CATI reports, based on the
16 guidance that was provided to us for the
17 advanced reviews.

18 **DR. ZIEMER:** Jim.

19 **DR. MELIUS:** Yeah, I'm not a member of the
20 subcommittee, but maybe somebody could help me
21 out a little bit in terms of this issue of, you
22 know, where's the appropriate place for us to
23 put our resources in terms of this review.
24 Seems to me that this work book concept, which
25 I now understand a little bit better and I

1 understand why NIOSH and their contractor is
2 taking that approach, but at the same time it
3 certainly raises the possibility that an error
4 in a site profile gets carried over to a work
5 book, which can then have a very significant
6 effect on a whole series of dose
7 reconstructions with, in some ways, less
8 opportunity for the dose reconstructor to catch
9 that error 'cause it will not be as transparent
10 or involved a process. Now it's good 'cause it
11 -- it's much more efficient for them and I
12 think we want that. At the same time I think
13 it -- it does raise issues regarding potential
14 for -- for errors and sort of where we go if --
15 if a problem is undiscovered from a site
16 profile it's going to get carried through this
17 process and could potentially affect very
18 significantly a number of these, you know,
19 best-estimate dose reconstructions and
20 therefore affecting some of the outcomes. So
21 have -- has the subcommittee discussed where we
22 go in terms of resources and priority?

23 **DR. ZIEMER:** Jim, excellent question, and let
24 me in a sense postpone the answer for a few
25 moments 'cause we're going to hear from John

1 Mauro in just a few minutes and this will
2 relate to particularly the topic of note books
3 and some tasking that we might have before us
4 for our contractor that would address that very
5 question. But it certainly is a pertinent
6 question to -- to follow up now, not only on
7 the dose reconstructions but on the procedures
8 review itself.

9 Let me see if there's other questions for
10 Kathy.

11 **DR. WADE:** Kathy, where are we in terms of the
12 next round of reviews? Just could you fill us
13 in on status?

14 **MS. BEHLING:** Actually we have just really
15 started doing the next round of -- I think
16 we've looked at about two of them.

17 **DR. BEHLING:** We are -- I -- I had hoped to
18 have been well into the next 22 cases, but due
19 to the changes in -- in -- in interests
20 regarding some of the TBDs I was drafted into,
21 I've had to forego some of my time and -- and
22 not dedicating too much to those cases --

23 **DR. ZIEMER:** Understood.

24 **DR. BEHLING:** -- but I hope to, as soon as --
25 in fact, starting tomorrow we'll get back into

1 the next 22 cases. And unless there's some
2 recommendation that perhaps we may not want to
3 even do that, but I think that's a topic for
4 discussion by the Board.

5 **MS. BEHLING:** If I can also just expand on the
6 work books, one of the things I intended to say
7 on the tab 27, 28 and 30 that I talked about at
8 length that indicated that it was a best
9 estimate for the external dose, there were
10 quite a few findings that SC&A had because we
11 couldn't reproduce all of those doses. And
12 once we have an opportunity to take a more
13 thorough look at that particular work book,
14 which happens to be the Savannah River Site
15 case, many of those findings may be withdrawn.
16 But to us I think it's very important that we
17 have a -- a full understanding of the work
18 books. And as you indicated, Dr. Melius, if
19 the Technical Basis -- the work books seem to
20 be being developed as the Technical Basis
21 Documents are developed, and it is -- it's
22 actually a very good approach for the dose
23 reconstructor to -- for consistency purposes
24 and ensuring that the site-specific information
25 is incorporated into one -- one work book,

1 which would -- certainly helps them. But right
2 now we don't fully understand those work books
3 and I do think that's an important aspect and
4 we will contin-- we will, at least in these 18
5 cases, look at the work book associated with
6 the Savannah River Site to get a much better
7 understanding of that.

8 **DR. ZIEMER:** Thank you. Other questions for
9 Kathy? Okay, thank you very much.

10 Now let me just point out where we are in the
11 scheme of things here. We have a task three
12 follow-up document, I think, to act on, do we
13 not, from out of the subcommittee? Am I
14 correct?

15 **MR. GRIFFON:** Talking about the matrix?

16 **DR. ZIEMER:** Help me remember what -- yeah.

17 **MR. GRIFFON:** I mean I think we wanted -- I
18 think we wanted to just discuss the process for
19 going forward with --

20 **DR. ZIEMER:** Right, for task three.

21 **MR. GRIFFON:** -- accord-- to -- yeah.

22 **DR. ZIEMER:** We have -- we -- we need to hear
23 from Larry Elliott yet on the status report.
24 That can -- Larry can make that pretty brief, I
25 know. Right? We have --

1 **DR. WADE:** Well, we can also forego that.

2 **DR. ZIEMER:** It's a program update.

3 **DR. WADE:** Right.

4 **DR. ZIEMER:** Also --

5 **DR. MELIUS:** Can I e-mail my usual questions to
6 Larry?

7 **DR. ZIEMER:** Also I -- I guess there's tacit
8 understanding, but we need to make clear what
9 the next steps are on the -- the 18 cases that
10 Kathy just reported on. I think there's an
11 assumption that we would proceed in a process
12 parallel to what was done in the first 20 cases
13 where we get the NIOSH responses and -- and --
14 and go through the matrix and basically I think
15 that's the expectation of both NIOSH and SC&A.
16 Does that require any specific Board action for
17 that to proceed or can we take it by consent
18 that that process will move forward as it was
19 done previously?

20 **MS. MUNN:** I thought we'd established that at
21 our -- at our second round, that that's --

22 **DR. ZIEMER:** I believe that's been put --

23 **MS. MUNN:** -- the way we were going to proceed.

24 **DR. ZIEMER:** -- in pace -- place. I just want
25 to make sure everybody's comfortable that

1 that's what will happen and that --

2 **MS. MUNN:** Unless --

3 **DR. ZIEMER:** -- we will move forward in --

4 **MS. MUNN:** -- we decided we were going to
5 change our procedure.

6 **DR. ZIEMER:** Was that the understanding of both
7 the contractor and NIOSH, that we would proceed
8 on the second 18 cases in a manner similar to
9 what we did with the first 20 in terms of going
10 through the matrix process, the NIOSH responses
11 and --

12 **MR. GRIFFON:** We -- we started already but, you
13 know --

14 **MR. HINNEFELD:** Well, we -- we can certainly --

15 **DR. ZIEMER:** Yeah, under way already, yes.

16 **MR. HINNEFELD:** We expect that we would do
17 that, I think.

18 **DR. ZIEMER:** Right, thank you.

19 **MS. BEHLING:** And in fact I believe that
20 process --

21 **DR. BEHLING:** (Unintelligible) pretty far
22 along.

23 **MS. BEHLING:** -- has been started, our meeting
24 in Cincinnati on the 31st of May.

25 **DR. ZIEMER:** Yeah. Just make sure that the

1 Board is aware that this --

2 **MS. BEHLING:** Yes.

3 **DR. ZIEMER:** -- will continue and will come to
4 a closure time similar to what we did earlier
5 today on the second 18.

6 Does the group wish to have a break, or do you
7 want to plow ahead?

8 **DR. WADE:** Well, I wonder about John's
9 availability, though. I...

10 **DR. MAURO:** Yes, I have a relatively brief
11 presentation that it would be helpful to me if
12 we can take care of that now, if that's okay
13 with...

14 **MR. GRIFFON:** You know, I -- I do have one
15 question, though. I -- I'm worried that you've
16 got public comment on the agenda and I --

17 **DR. WADE:** At 4:15.

18 **MR. GRIFFON:** -- I fear that we're not going to
19 have a quorum 'cause a lot of us have -- I know
20 that I have a 7:00 o'clock flight and so I
21 don't know if -- if there's people that are
22 signed up, maybe we should --

23 **DR. WADE:** I think --

24 **MR. GRIFFON:** -- instead of --

25 **DR. WADE:** -- we should hear John while he's

1 here.

2 **MR. GRIFFON:** Okay. All right.

3 **SC&A CONTRACT ISSUES**

4 **DR. ZIEMER:** Okay, John Mauro. I think John
5 just has like one slide.

6 (Pause)

7 **DR. MAURO:** My slide is not here. Unless I'm -
8 - I don't see it.

9 **DR. WADE:** Well, it has been handed out, John.

10 (Pause)

11 **DR. ZIEMER:** John's slide is a -- what would
12 look like an organizational chart. It was I
13 believe e-mailed to the Board members earlier.

14 **UNIDENTIFIED:** Correct, nobody's got it.

15 **DR. MAURO:** Okay. Well, we'll -- we'll make do
16 with the -- if everyone has a --

17 **DR. ZIEMER:** We have copies, John.

18 **DR. MAURO:** You have a hard copy and I think we
19 can work with the hard copy. What -- what this
20 -- everyone should have in front of them this
21 one -- this little chart. What -- what -- what
22 this represents is -- as a result of the work
23 we've done over the past year and a half, we
24 all know -- and we're -- we're in the home
25 stretch. That is, we're going to be through

1 with the period of performance for all our
2 work, for the four tasks, by the end of
3 September. And what we really have is 22
4 additional cases to do. We've got three more
5 site profiles, and we will have accomplished
6 fulfilling our mission for the first four
7 tasks.

8 What this chart is is over this year and a half
9 we asked ourselves -- we regrouped about two
10 weeks ago and said listen, can we be doing our
11 work in a better way, are there other things
12 that we should be doing or do things in a
13 different way than we did over the past year
14 and a half. You know, we have our four tasks.
15 And the question becomes do we need to change
16 anything to -- to help the Board accomplish its
17 mission in a more efficient and effective way.
18 Well, what I did is I asked myself the question
19 well, is -- is NIOSH's dose reconstruction
20 process changing, and if it is changing in a
21 way that -- does that mean that we need to
22 change the way we go about our business of
23 auditing and reviewing their work. And the
24 answer to that is yes. And this chart is my
25 attempt to capture the changing nature of the

1 activity -- the dose reconstruction process
2 that NIOSH has employed in the past and how
3 it's changing and it's going into a new
4 direction.

5 Let -- let me explain this chart. You'll
6 notice on the top half of the chart is a box
7 that's -- where I make reference to minimal use
8 of site profiles, and a box right beneath that
9 that says original sets of procedures, and the
10 to the right is arrows pointing to primarily
11 min/max dose reconstructions. What that says
12 is in the past -- and based on our review of
13 the cases that we've just heard, the 38 cases,
14 what's been -- what we see is that the -- the
15 cases we've been looking at have been primarily
16 min/max type analyses as opposed to these
17 realistical (sic) best estimates. And -- and
18 in order to perform those dose re-- dose
19 reconstructions, the -- NIOSH has made --
20 basically has made use of, of course, its site
21 profiles, but made minimal use because using
22 the min/max approach you don't really have to
23 get into the nuts and bolts of the details.
24 And in addition, they have their sets of
25 procedures.

1 Now -- so our work has been to review this -- a
2 selected number of site profiles, review their
3 procedures -- and you heard about that today --
4 and of course review the dose reconstructions
5 themselves. And what we found is that yes,
6 there -- we find a long list of findings in
7 regard to the -- the site profiles themselves,
8 a long list of findings related to the
9 procedures that were used, and of course --
10 this is re-- we all saw how -- are making
11 certain findings related to the actual dose
12 reconstructions. Now -- and -- and you have
13 all our reports and everything's before you and
14 now we're actually in the process now of trying
15 to achieve some closure. So to me,
16 everything's proceeding as planned.
17 But then I asked myself where -- where were we
18 falling short or where may-- may be some
19 weaknesses in -- in what we've been doing, and
20 -- and maybe we should think about a new way of
21 doing things. And one of the first things that
22 comes to mind is that when we review a dose
23 reconstruction, as described by Hans and Kathy,
24 we -- we really emphasize the procedures that
25 are being used, the written procedures, trying

1 to understand what those procedures say. We
2 don't -- when we review the case -- the actual
3 cases, we read the site profile and the
4 supporting TBDs, but to the extent we can, we -
5 - we get a feel for whether or not it looks
6 like they've got a good scientific basis for
7 their -- for the -- to base their dose
8 reconstruction. But most of the time, the on--
9 there's only one set of actual cases where --
10 that we reviewed where we benefited from the --
11 the site profile review and that was Bethlehem
12 Steel. So that -- in fact, one -- one of the
13 first sets of cases -- and in fact I reviewed
14 those cases -- had to do with Bethlehem Steel
15 and I was fortunate enough to be able to stand
16 on the shoulders of all the folks that did the
17 review of Bethlehem Steel. We were -- now
18 that's not the case for just about any of the
19 others. That is, most of the other studies
20 that -- dose reconstructions that was reviewed
21 were being done about at the same time that
22 some of the site profiles were reviewed. So
23 what happens is our commentaries and findings
24 certainly reflect the deficiencies or issues
25 that we raised as described by Hans and Kathy

1 really don't fully reflect perhaps some
2 problems might -- that might exist in many of
3 the site profiles that -- that are being
4 described and discussed at these meetings,
5 also.
6 See, there's a -- we have a disconnect. That
7 is, we could probably do a better job if we had
8 more of the site profiles under our belt. And
9 as we do more and more site profile reviews,
10 we're going to be in a better position to -- to
11 do a more thorough review of the actual cases.
12 Now -- now what's happening, though, is we --
13 we have all these findings, 103 findings on the
14 last 18 cases, but what we found out is none of
15 them really -- as Kathy pointed out, though we
16 have these findings, the -- and the root cause
17 of many of these findings go back to the
18 procedures. Well -- and some problems that
19 we're finding with the procedures, but they
20 really have no -- have not had a profound
21 effect on the outcome of what we've reviewed so
22 far because the min/max cases are really pretty
23 robust. They -- you -- it's really hard to
24 flip any of those, so -- so -- but, now here's
25 what -- now we're going to move to the bottom

1 half of my little chart here. Okay?
2 What's happening now is NIOSH is moving out of
3 a mode of min/max and they're moving into a
4 mode of doing realistic cases. Okay? The
5 tough ones. Okay? The low-hanging -- they're
6 getting away from the low-hanging fruit. But -
7 - and -- and -- and what's happening now is --
8 so NIOSH is moving away -- now what's happening
9 is in order to support that, lot -- lots more
10 Technical Information Bulletins are being
11 prepared to supplement the -- the -- the site
12 profiles because they have to address more and
13 more sophisticated issues. More procedures are
14 being written and the whole methodology for
15 doing dose reconstructions get -- are -- are
16 maturing and getting more and more
17 sophisticated, to the point where -- to make
18 sure that they're being done correctly,
19 quickly, efficiently, to do realistic estimates
20 they need work books. So the work books are in
21 -- are moving in place. And so all of a sudden
22 the mode of operation, as I see it -- and you
23 know, our -- our view of the world is now --
24 NIOSH is shifting away from let's say just
25 using the simple site profiles, the simple sets

1 of procedures to do min/max calculations. Now
2 they're moving into much more sophisticated
3 work books, spreadsheets, you -- more advanced
4 Technical Information Bulletins in order to do
5 best estimates or realistic analyses.
6 Now, so what -- what does that mean? Okay. If
7 -- if they're moving into that mode of
8 operation, we have to move into that mode of --
9 mode of operation. And what does that mean
10 regarding our tasks? The tasks, as we've
11 crafted them to date, are inadequate to meet
12 that demand. And what I see is -- in the
13 future to -- is tweaking task one and tweaking
14 task four, and let me explain what I mean by
15 that.
16 I see -- let's say we -- we're going to move on
17 and do a review of another site profile. I
18 think that -- and -- I think that in the
19 process of reviewing the site profile we should
20 also review not only all the TIBs that go with
21 it 'cause they have all these supplements that
22 are always being added, but we should also be
23 reviewing the work books that implement that
24 site profile because the work books really come
25 in two types. There are generic work books

1 that sort of cut across the board, but there
2 are also work books that are primarily site-
3 specific. There are INEEL work books, there
4 are Savannah River work books. And so what I
5 see is -- in the future as being very important
6 is review your TBD or site profile reviews and
7 their supporting Technical Information
8 Bulletins, but simultaneously review the work
9 books to see the degree to which the work books
10 faithfully capture the guidance contained in
11 the TBDs, so this -- because the work books, as
12 far as I'm concerned -- the site-specific work
13 books -- are really part and parcel of a TBD.
14 They're part of the instructions and guidance.
15 In fact, the work books appear to me to be
16 coming where the rubber meets the road.
17 This is how they're going to -- how dose
18 reconstructions are going to be implemented.
19 So it seems to me that when we're reviewing a
20 site profile we should also be reviewing these
21 work books and spreadsheets. But I'll take it
22 a step further.
23 When we're reviewing the work books, I think we
24 should also be reviewing some cases. Now this
25 is a difficult problem, but you see, it's

1 really a three-step process. You -- you come
2 up with the -- detect the science, the approach
3 in the work book and TIBs. You convert that
4 into a work book. Then the next step is they
5 take the work book and they implement it and
6 they do some -- they do some ca-- some
7 realistic cases. And they say we're not doing
8 min/max now. It was on with the real thing
9 now. And in my mind, we have to integrate. We
10 have to cut across the -- the three separate
11 tasks that we have now where we're separately
12 looking at procedures, separately looking at
13 TIBs -- Technical Information Bulletins, and
14 separately looking at dose reconstructions. I
15 think that is -- I think that it -- we would
16 benefit greatly and it -- and I'll tell you why
17 -- what the great benefit is. It's going to
18 make these much more -- we're going to come to
19 closure much more quickly.

20 So we have this long list of findings. Right?
21 I mean list of findings go on forever on -- on
22 whether we're reviewing TIBs or reviewing
23 procedures or reviewing dose reconstructions.
24 If we integrate the three, we're going to find
25 out what's important and what's not important,

1 because we're going to be -- in fact, in a way,
2 this happen -- it's happening on Mallinckrodt.
3 That's exactly what we're going to be doing on
4 Mallinckrodt. We're looking at some real cases
5 'cause we -- we have to validate that the
6 procedure that's been laid out -- whatever that
7 procedure is that's being developed -- is in
8 fact implementable and works. So it seems to
9 me that that -- that is -- that just emerged
10 out of this process we're in. I mean it wasn't
11 by design. We sort of came to that consensus,
12 this is how we're going to get through the --
13 the Mallinckrodt issue and this -- of course
14 that was for an SEC, but I see that -- in a
15 similar way, we need to cut across.
16 So my first recommendation is, in light of the
17 new -- to shift toward work books. I -- I
18 think that whenever we do review of a site
19 profile under task one, it should also include
20 work books and it should also include at least
21 a selected handful of cases which are
22 deliberately selected because they're best
23 estimates so we could -- so we could find out
24 whether the -- the process from cradle to grave
25 is working, and whether or not it's an

1 efficient process and what -- and what issues
2 are important. So that -- that's one of my
3 first recommendations on how to do things
4 differently, and it's all triggered because of
5 moving from min/max to best estimates, and
6 we're moving away from let's say just hand
7 calculations or follow procedures and be -- and
8 using these spreadsheets and work books. So I
9 would tweak task one to do this full -- this
10 flow I just described.
11 With regard to task four, which is our site --
12 I -- I think if we continue to do our two and a
13 half percent, but I think we've got to get away
14 from the min/max cases. You see, we've done --
15 we've done 38 cases. We're coming back with
16 the same results over and over again, over and
17 over again. So I mean it's almost like we --
18 we can do them, but are we really adding value
19 now.
20 It seems to me that an effort -- when -- when --
21 - when the cases are selected, when you go
22 through your case selection process and you
23 have your criteria -- you have all your
24 criteria -- well, I think one of the criteria
25 has to be is it a best-estimate. In fact, when

1 I was talking to Paul the other day and Paul
2 said well -- well, doesn't -- well, if it's a
3 45 percentile POC, 'cause that's one of your
4 criteria, POC, wouldn't that automatically make
5 it one that's probably realistic. The answer
6 is no, not necessarily. In fact, most of the
7 times no. So part of your selection process
8 should be specifically make sure we get some
9 realistic ones in there 'cause I don't think
10 we're going to get -- that we're going to get
11 very much more out of our audits of min/maxes.
12 We're going to start to really get -- we're
13 getting a lot more out of reviewing the -- the
14 -- the best estimate cases.
15 So my second recommendation is that we -- when
16 -- when the cases are selected for task four,
17 the next round, that an effort be made to get
18 some realistic cases in there so we could
19 really test it, you know, as opposed to just
20 these min/max. So I mean I -- that really is
21 the essence of the point I wanted to make and
22 some of my thoughts on looking to the future
23 and perhaps changing the way we're doing things
24 a little bit. Thank you.

25 **DR. ZIEMER:** Thank you very much, John. And it

1 immediately poses a question. In fact I asked
2 John this, also, and I'm not sure we knew the
3 answer to it, but perhaps Stu or Jim could
4 answer this. Do we have a way, a priori, on --
5 on closed cases of determining -- you know, we
6 know what sites they're from and we know POCs
7 and so on. Can we tell in advance whether it's
8 a best-estimate case, or can we readily tell
9 whether it's been a min/max versus a best
10 estimate as a sorting tool?

11 **MR. HINNEFELD:** We -- we have a way to select
12 that choice, but it's a -- the field is
13 populated by the approving HP at the time he
14 approves the dose reconstruction. He -- he
15 decides is this an internal overestimate,
16 internal both, internal -- you know,
17 overestimate, both internal and external. And
18 so they choose in that fashion. And probably a
19 best-estimate is chosen fairly reliably. Now
20 the reason I say that is we can pull up cases
21 from that field -- you know, final cases with
22 that field that's saying best estimate, but it
23 may require a manual look to determine if a
24 work book was really utilized in that approach.
25 Okay?

1 **DR. ZIEMER:** Yeah.

2 **MR. HINNEFELD:** So it would be sort of a two-
3 step selection.

4 **DR. ZIEMER:** And we don't have to come to
5 closure on that today, but I wanted to find out
6 if it's at least feasible to have that as a
7 selection criteria, and I think you're saying
8 it probably is feasible.

9 **MR. HINNEFELD:** It might be a two-step, and
10 there's some Board working group members would
11 probably want to look and see -- I would see --
12 I don't want us to do it because then we would
13 potentially censor it --

14 **DR. ZIEMER:** Right.

15 **MR. HINNEFELD:** -- so -- so a working group
16 member perhaps look at the --

17 **DR. ZIEMER:** Right.

18 **MR. HINNEFELD:** -- pulled on the -- you know.

19 **DR. ZIEMER:** Right. And --

20 **DR. BEHLING:** Actually, Dr. Ziemer, if I can
21 add something.

22 **DR. ZIEMER:** Sure.

23 **DR. BEHLING:** In principle we should have been
24 able to do that on the basis of POC. But as we
25 now know, that has not been a successful

1 criteria. If you look at --

2 **DR. ZIEMER:** Right, that's why I'd asked --

3 **DR. BEHLING:** Yeah.

4 **DR. ZIEMER:** -- John that originally 'cause I

5 think we thought that --

6 **DR. BEHLING:** Yes.

7 **DR. ZIEMER:** -- would capture these when we

8 selected that -- the area --

9 **MR. GRIFFON:** Or I think --

10 **DR. BEHLING:** Yes.

11 **DR. ZIEMER:** -- just below 50 percent.

12 **MR. GRIFFON:** I think we had asked before

13 whether we could --

14 **DR. BEHLING:** Well, let me -- let me --

15 **MR. GRIFFON:** -- come up with some criteria --

16 **DR. BEHLING:** -- explain something --

17 **MR. GRIFFON:** -- for efficiency, but I think

18 we're asking the better question now, you can

19 sort by --

20 **DR. BEHLING:** Well, and let me explain

21 something. If you look at Procedure 6, ORAU

22 Procedure 6, it does in fact state that if a

23 best estimate exceeds 30 percent POC, it should

24 be converted into -- a maximized procedure

25 exceeds 30 percent it should be redone as best

1 estimate, which is not currently being done.
2 So the procedure that exists currently is not
3 being used. So any time you maximize a dose
4 and the POC exceeds 30 percent, the procedure
5 calls for revising that estimate and turning it
6 into a best estimate. And so I'm sure in the
7 past when we have selected -- when the Board
8 has selected these cases and looked at -- oh,
9 here's a case that's 42 percent, the -- the
10 illusion is that it must be a best-estimate,
11 otherwise --

12 **DR. ZIEMER:** Right.

13 **DR. BEHLING:** -- you wouldn't have gotten
14 there.

15 **DR. ZIEMER:** Right.

16 **DR. BEHLING:** But the truth is, that 42 percent
17 should have never occurred to a maximized dose
18 reconstruction based on the procedure
19 requirement that says any time you exceed 30
20 percent you convert it to a best estimate. And
21 there's -- there's multiple benefits to that.
22 One, you don't obviously give the false
23 illusion to the claimant that oh, my God, I got
24 very close. I think there's a multitude of
25 benefits from doing --

1 **DR. ZIEMER:** Right.

2 **DR. BEHLING:** -- exactly that, but it's not
3 being used.

4 **DR. ZIEMER:** Right. So the -- the tweaking of
5 task four is more realistically a change in our
6 selection criteria rather than a change in the
7 task.

8 **DR. MAURO:** Exactly.

9 **DR. ZIEMER:** Whereas the tweaking of task one
10 may be more than a tweak.

11 **MS. MUNN:** Sounds like it.

12 **DR. ZIEMER:** May be a double-tweak, but it --
13 it -- it is a -- a modification, at least, of
14 task one, if -- if we were to do this. Again,
15 Lew, I don't know what it would take for us to
16 move into that mode if we -- if we want to
17 begin to think about this further or to do
18 something more concrete very soon, but we -- we
19 certainly need to consider that because that's
20 the issue of the use of the work books and the
21 review of those and how that fits in with the
22 site profile. So it would seem that we have to
23 move in that direction fairly soon, get --

24 **DR. WADE:** Right, with some --

25 **DR. ZIEMER:** -- something under --

1 **DR. WADE:** -- dispatch. I mean relative to
2 task four, we could at our next meeting, in the
3 subcommittee, undertake the selection of the
4 next 20 cases with this information in mind and
5 -- and accomplish what John has asked for. And
6 I think we can do that within the original task
7 structure.

8 On task one, we would need to modify task one,
9 if the Board agrees, to include what John has
10 asked, which is when they review a site
11 profile, have them review the work books and
12 include as part of that review package several
13 specific best-estimate cases. If the Board
14 wants to move in that direction it can go in
15 one of two directions. It can prepare the task
16 order or it can ask me to prepare the task
17 order. But I think we want to move with some
18 dispatch on this.

19 **DR. ZIEMER:** Okay.

20 **DR. MELIUS:** Can I --

21 **DR. ZIEMER:** Jim and then --

22 **DR. MELIUS:** -- can I com--

23 **DR. ZIEMER:** -- Mark.

24 **DR. MELIUS:** Yeah, I -- I have some concerns
25 about including actual cases in the procedures

1 review -- in task one. I think there's going
2 to be some delays involved in those cases
3 getting adjudicated, and I think that I would
4 rather keep case review part of -- of task
5 four. I think we have to keep in mind, you
6 know, in terms of our sampling and so forth,
7 that -- that we want these best-estimate cases
8 and so forth --

9 **DR. ZIEMER:** We could keep in mind what site
10 profiles are being reviewed --

11 **DR. MELIUS:** Right.

12 **DR. ZIEMER:** -- and select accordingly --

13 **DR. MELIUS:** Yeah.

14 **DR. ZIEMER:** -- but keep the tasks separate,
15 would be a good point.

16 **DR. MELIUS:** Yeah, I think so. But -- so we
17 include work books, these technical
18 (unintelligible). I think the first step we
19 need to take, though, is -- is to inventory
20 those, if that hasn't been done already to --
21 so -- that -- I think we ask our contractor
22 maybe to -- I think this is appropriate, to do
23 an inventory I think of sort of the matrix,
24 what's -- okay, there's the Savannah River site
25 profile and there's these eight, ten, 12 or

1 whatever kind of -- you know, whatever the
2 number is of work books and so forth that are
3 currently there or currently -- hopefully we'd
4 include --

5 **DR. ZIEMER:** Or does this inventory already
6 exist or readily --

7 **DR. MELIUS:** Well --

8 **DR. BEHLING:** Can I ask -- or -- or make a
9 comment here?

10 **DR. ZIEMER:** Sure.

11 **DR. BEHLING:** I think the benefit -- I fully
12 understand what Dr. Melius's concern is, but
13 there's also benefit that John I think brought
14 out but maybe needs to be re-emphasized. When
15 I for instance do a dose audit, a dose
16 reconstruction audit -- and let's assume we do
17 get best estimates and it -- they do in fact
18 make use of a TBD, my assessment will be very
19 limited. It will be a stage one review in a
20 sense where my evaluation of that audit -- as
21 an auditor will be looking at the -- the dose
22 reconstruction and saying did you comply with
23 the TBD, which is the first step. The second
24 step, is the TBD correct. And what John is
25 proposing is to integrate the task one and task

1 four so that the audit under those conditions
2 would not only say did he comply with the TBD,
3 but is the TBD correct, which may even be a
4 much more important issue, which would be lost
5 if we segregate task one from task four.

6 **DR. WADE:** Is Michael Gibson still on the
7 phone?

8 (No responses)

9 **DR. WADE:** Okay. If Mike is not, when Gwen
10 (sic) leaves we lose a quorum, by my count, so
11 it means we just can't conduct any formal
12 business. We can continue to have a
13 discussion, but we lose a quorum.
14 The issue I'd like to get a sense of the Board
15 on is the modification of task one to include
16 work books. Is that something that you want to
17 pursue?

18 **MR. GRIFFON:** I --

19 **DR. ZIEMER:** Mark.

20 **MR. GRIFFON:** You know, I -- I suppose that's a
21 modification. I mean I -- it -- it -- it
22 strikes me that this is such a revelation.
23 These work books have been used forever. They
24 continue to add some, I know that continues to
25 evolve. But I mean I've been looking at and --

1 and -- and I haven't had the training, so I've
2 stumbled through some of these work books. I
3 admit they're comp-- there's a level of
4 complication there that maybe wasn't expected
5 or anticipated. But for instance, the Savannah
6 River site profile, the findings in the dose
7 review were deferred to the site profile
8 review, and one of the big issues is the high
9 five, which we all know is in the -- is in this
10 spreadsheet that they've been using. So isn't
11 that under the scope already there? I --
12 that's a question -- part of my question. I
13 understand that as -- as -- I think part of
14 what John's saying is that as we've learned
15 what these work books are and -- and the level
16 of complication, programming, they do have
17 Monte Carlo techniques integrated into some of
18 the work books -- I mean maybe there is
19 additional scope there --

20 **DR. WADE:** Let me expl--

21 **MR. GRIFFON:** -- but I --

22 **DR. WADE:** Let me explore with the contracting
23 officer the --

24 **MR. GRIFFON:** Yeah.

25 **DR. WADE:** -- the premise that the review of

1 the work books is -- should already have been
2 included or is already included in the scope of
3 our task one, and see what -- what answer I get
4 from the contracting officer.

5 **DR. MELIUS:** And then parallel to that, if we
6 can develop this inventory, if it hasn't been
7 done already -- at least -- or make it
8 available to the Board so that we understand.

9 **DR. WADE:** Yes, we'll keep the work going.
10 When we meet in August we can have the
11 subcommittee meeting that can pick the next 20
12 cases and we can try and consider the things
13 that John has spoken to us about, about
14 increasing the number of best-estimate cases.

15 **DR. ZIEMER:** If -- if in fact the -- the
16 contracting official believes that the work
17 books are somewhat apart from the defined task,
18 then we need to be in a position to tell him
19 that the sense of the Board, if it is indeed
20 the sense of the Board, is that -- if necessary
21 -- they should be explicitly identified as
22 being part of the task.

23 **DR. WADE:** Okay.

24 **DR. ZIEMER:** And I think -- well, we don't have
25 a quorum anymore so we can't formalize that,

1 but at least we can explore the question with
2 the contracting officer and -- and at the next
3 meeting, if we need to take action, we can take
4 that action and move ahead on it.

5 **DR. WADE:** Explore the question.

6 **MR. GRIFFON:** I mean I -- I think this -- this
7 also came up in procedures review. You know,
8 there is -- I mean one of the first procedures
9 I looked at was -- and I can't remember the
10 document number or the complete title, but it
11 was the atomic weapons overes-- maximizing
12 models, and ri-- you know, you read through it
13 and right in there it references a work book.
14 So my first question a couple of years ago was
15 -- to Jim Neton, you know, where is this work
16 book and that's how we started down this path
17 of actually getting access to the O drive and
18 finding these things. So I -- I think, you
19 know, in my mind, part and parcel to reviewing
20 that procedure -- I've got to look at that work
21 book, you know.

22 **DR. ZIEMER:** Right, right.

23 **DR. WADE:** I understand. And I feel --

24 **MR. GRIFFON:** Yeah.

25 **DR. WADE:** -- I feel comfortable pursuing this.

1 Thank you.

2 **DR. ZIEMER:** All right. So thank you, John,
3 we'll follow up on that.
4 Wanda?

5 **MS. MUNN:** Just a comment. It seems only
6 reasonable and efficient to try to move in the
7 direction that our subcontractor has suggested.
8 Certainly if I were doing those cases I would
9 want to do precisely as John has suggested,
10 look at all of it at one time. And I can't
11 imagine any way that we could streamline it any
12 more obviously than that.

13 The other thing -- Dr. Wade suggested that
14 perhaps the subcommittee could be choosing the
15 next 20 cases that we would be looking at.
16 That is not what our process has been in the
17 past, but I -- I can't speak for the rest of
18 the subcommittee, but I -- I assume that if
19 that's what the Board wants us to do, we can do
20 that. But in the past --

21 **DR. ZIEMER:** The subcommittee made the
22 preliminary cut and brought it to the Board for
23 final -- the Board has to make the selection.

24 **DR. WADE:** That's what I meant, I'm sorry.

25 **DR. ZIEMER:** The subcommittee did the initial

1 sort of screening of those.

2 **MS. MUNN:** We had more than 20 before the whole
3 Board to choose from, though.

4 **UNIDENTIFIED:** Right, we did.

5 **DR. ZIEMER:** Yes, we did. We selected -- in
6 fact, we selected the second 20 and found out
7 two of them had -- had been removed from
8 finalization and had them sent back for review
9 or something, so ended up with 18. But -- but
10 we had a longer list from which we chose.

11 **MS. MUNN:** Much longer.

12 **DR. WADE:** I'm sorry, Wanda, I misspoke. I
13 would just suggest the same process be followed
14 by the subcommittee and the Board to arrive at
15 the next 20, with this consideration in mind.

16 **DR. MELIUS:** Can -- can I just speak to what I
17 think is a competing concern the Board should
18 have. And while I understand the efficiency of
19 doing it the way John and Hans have suggested,
20 I also worry that that gets our whole review
21 process focused on a few sites. And I think we
22 have some duty to all of the claimants from all
23 -- many different sites that we continue to
24 have some process that reviews other claims.
25 And I -- I'm not convinced yet that -- that by

1 moving individual dose reconstruction reviews
2 into task one that we don't sacrifice too much
3 of our need to keep some breadth to that --
4 that process. So it -- it's probably an issue
5 of finding the right balance and so forth --

6 **DR. ZIEMER:** Right.

7 **DR. MELIUS:** -- and the right approach, but I
8 think we have to keep that other--

9 **DR. ZIEMER:** Right.

10 **DR. MELIUS:** -- issue in mind.

11 **DR. ZIEMER:** And at present, if we maintain the
12 separate tasks, it would be up to the Board to
13 select them appropriately so that if they
14 indeed need some samples from that site that
15 they are available for them to use.

16 Mark, you had another comment?

17 **MR. GRIFFON:** Yeah, I just wanted
18 clarification. I -- I notice we don't even
19 have enough --

20 **DR. WADE:** Right, I think we --

21 **MR. GRIFFON:** -- Board members now, but the
22 last 22 that -- that Hans just mentioned that
23 he's just begun to -- to work on, is there any
24 sense that -- that we should continue with
25 that? And I don't know that we have a quorum

1 here now that we could even consider halting
2 that work --

3 **MS. MUNN:** No point in talking about it.

4 **DR. WADE:** Yeah --

5 **DR. MELIUS:** E-mail.

6 **DR. WADE:** -- I really don't think we could. I
7 don't think we have a quorum. I think we need
8 to -- to stop. I mean we can talk off-line and
9 if you feel strongly we can try and get a phone
10 meeting of the Board together, but I think
11 we're past our quorum now so I think we need to
12 be done.

13 **GENERAL PUBLIC COMMENT**

14 **DR. ZIEMER:** I want to move to the public
15 comment period since it is that time to do so.
16 Let me -- I'm going to introduce first a
17 gentleman who's been here for our session all -
18 - all week -- that is all during the meeting
19 time. He is here as an observer. He's a board
20 member for the newly-formed advisory board --
21 and I don't know their full correct title, but
22 it's the parallel group that is going to be
23 handling the veteran's cases. They are going
24 to be -- it's going to be administered through
25 the National Council on Radiation Protection

1 and Measurements. The President has now
2 selected those board members and they are
3 underway. We have -- one of their staff
4 members has -- actually a couple of their staff
5 members have been with us in the meeting, but
6 one of the board members is Colonel Ed Taylor,
7 and there he is at the mike. And Ed, welcome,
8 just to -- he wanted to bring greetings to us.
9 **COLONEL TAYLOR:** Thank you. I only planned to
10 use two minutes and you just used one of them,
11 so we're (unintelligible). You told who I am
12 and where I'm from and what I'm doing, and I
13 wanted to thank this Board particularly. There
14 are actually four or five staff members from
15 DTRA here. I happen to be the only board
16 member, and I can assure you that Admiral
17 Zimble would like to have been here and sends
18 his regards.
19 We're having our first meeting down in August -
20 - mid-August in Tampa, co-located with the
21 National Association of Atomic Veterans, of
22 which I'm also a member. But I just sat here
23 for three days now and you have done a
24 tremendous job of broadening the perspective of
25 somebody that's going to have to do part of

1 Fri-- Thursday night I got out of the hospital
2 and spent Friday -- all day Friday on a similar
3 thing with my board, and it was a fascinating
4 experience, and now I get to see it from the
5 other side. And I got a cauliflower ear out of
6 mine, I don't know what Mike got out of his.
7 Thank you.

8 **MS. MUNN:** Welcome, Colonel.

9 **DR. ZIEMER:** Thank you, Colonel Taylor, for
10 being with us today.

11 Dan McKeel has asked to have the floor. Dan,
12 welcome back to the mike.

13 **DR. MCKEEL:** Okay. Thank you. It's been a
14 long meeting. I'll try to be rather brief.
15 I'd really like to address the Board this
16 afternoon on several issues related to the past
17 three days, and I want you to excuse me for
18 being blunt, but I really have to take this
19 position which I feel pretty strongly about,
20 both as a medical scientist and as a concerned
21 citizen and a taxpayer.

22 First point is concerning scientific rigor. As
23 I understood the Advisory Board's charge from
24 you, Dr. Ziemer, Tuesday night, one of the
25 three main responsibilities under the EEOICPA

1 is to oversee NIOSH and their performance as
2 the prime contractor to perform radiation dose
3 reconstructions.

4 I was rather dismayed yesterday at the Board's
5 and SC&A's ready acceptance of data that Jim
6 Neton presented on four of his slides, on pages
7 7, 8 and 9. The slides all showed data he
8 construed as validating CER data on the MCW
9 dust study, air intakes and the urinary --
10 uranium median levels of Plant 6 workers. The
11 striking point to me was the very small end
12 values of only four ether house workers, three
13 cloth operators, five pot room workers and
14 three packagers, and that's out of a total work
15 force at that total uranium division of about
16 3,600 people.

17 No member of SC&A or the Board commented on
18 this fact, nor did they ask whether NIOSH had
19 performed any power analyses to detect
20 differences, which is a fundamental statistical
21 practice.

22 If NIOSH has air and dust urine data on 78
23 percent of the Mallinckrodt Destrehan workers,
24 as NIOSH states they have, why weren't the ends
25 much higher? And I ask, was this data in any

1 way representative of the total number of
2 workers in these crucial job categories? No
3 clear reason was stated as to why these
4 particular workers were used in the analyses to
5 demonstrate data integrity in the CER database.
6 The representative sampling nature of the data
7 went unquestioned by any Board member.
8 As a scientist, seeing this data raised more
9 questions for me than it answered. It
10 certainly did not convince me about the extent,
11 the scalability (sic) or the quality of the CER
12 MCW data. It really showed me there was a
13 large -- huge unexplained individual
14 variability and that good data might be
15 extremely limited.

16 Point number two, I was stunned by the Board's
17 tabling of Wanda Munn's motion to deny the MCW
18 SEC 0012-2 petition. This action effectively
19 delayed a final decision, probably until
20 November. In my opinion, this action was not
21 consistent with the Board's Congressional
22 mandate to decide about dose reconstruction
23 feasibility in a timely manner. In fact, the
24 tabling motion guaranteed another long delay.
25 In doing so the Board ignored the position of

1 SC&A, its own auditors, which found that
2 accurate dose reconstruction based on the Rev.
3 1 Mallinckrodt TBD was not possible, and that's
4 a quote, and may never be possible, even when
5 changes are made to correct multiple
6 deficiencies. The Board decided once more to
7 simply trust NIOSH's claim that they would
8 perform in three months dose reconstructions on
9 107 workers. Yet NIOSH, by their own
10 admission, had accomplished no -- that is zero
11 -- full dose reconstructions on MCW workers
12 thus far in almost five years of the program.
13 This is not a reasonable assumption to trust.
14 Why is this unconditional level of trust in
15 NIOSH merited by the President's oversight
16 board? I say it is not. The facts presented
17 should have had the opposite effect. That is,
18 they should make the Advisory Board
19 increasingly skeptical of NIOSH claims
20 regarding the agency's ability to do timely
21 dose reconstructions.

22 Also, is this unwarranted trust imparted to
23 NIOSH a responsible implementation of the
24 Board's primary responsibility? With all due
25 respect to Wanda Munn and those on the Board

1 who side with her, I do not believe it was.
2 Contracts are canceled in other arenas when
3 prime contractors fail to perform this way.
4 Ms. Munn's basic argument that we should trust
5 the Federal agency to be able to do what they
6 say they will do, and to discount past
7 performance or lack thereof, is not
8 historically appropriate. That is not what
9 this Board is charged to do.

10 Third point. There has been the repeated
11 implication that doing dose reconstructions on
12 MCW Destrehan Street workers was somehow a
13 uniquely difficult challenge. I believe NIOSH
14 stated that they had already performed 8,000
15 dose reconstructions, and I see from Larry
16 Elliott's figures the number's actually 8,230.
17 How are these MCW workers unique? The job
18 categories at many atomic weapons sites
19 overlap. Workers at other covered facilities
20 worked with pitchblende ore, were exposed to
21 radium and thorium, and handled K-65 type
22 raffinate waste. Yet zero MCW workers have
23 been fully dose reconstructed by NIOSH. Why is
24 this?

25 My opinion is that a Federal agency such as the

1 Government Accounting Office, the GAO, should
2 look anew at the EEOICPA claimants who have
3 been denied compensation and those whose dose
4 reconstructions are now in limbo. The root
5 causes of this failure by NIOSH to perform dose
6 reconstructions in a timely manner need to be
7 exposed and corrected, by legislation if
8 necessary. EEOICPA can and should be amended
9 further.

10 My fourth and last point is to remind the Board
11 that I brought FOIA evidence to them on Tuesday
12 night which showed that, at a minimum, several
13 hundred Mallinckrodt records from the 1949-'57
14 time period remain in the DOE CER classified
15 vaults at Oak Ridge. This remained -- this
16 retained classified status of MCW-related
17 records is possibly in violation of a 1999
18 internal DOE-wide directive. Many of those
19 classified records have titles which indicate
20 that they're MCW production process data. This
21 data, if known, could facilitate the Board
22 making a more informed decision on the MCW
23 special cohort -- Special Exposure Cohort 12-2.
24 Why is this information on MCW production
25 processes still classified 48 years after the

1 downtown site uranium operations ceased?
2 I asked three Federal agencies and ORAU for
3 this information in my March 10th, 2005 Freedom
4 of Information Act request, but an answer was
5 not forthcoming. I didn't mention this
6 situation merely as a curiosity. These
7 classified records need to be examined and
8 captured by the Board, SC&A and NIOSH, if that
9 has not already been done. If the data has
10 already been captured in Rev. 0 and 1 of the
11 MCD TBD, then NIOSH should document this fact
12 for the Board and SCA. I urge the Board to
13 examine this new information.
14 In closing, I'd say although I strongly endorse
15 the basic mandates of the Board, I cannot
16 adequately express my profound sense of the
17 magnitude of a disservice that has been done
18 once again to deserving Mallinckrodt claimants
19 and survivors in St. Louis during these past
20 three days. The least the Board needs to do is
21 schedule the August meeting here in St. Louis.
22 The needs of the Board for making direct
23 flights must be a secondary consideration. To
24 me, and I have to add, sadly, the net effect of
25 this meeting has been to significantly

1 undermine the scientific credibility and
2 objectivity of this Advisory Board on Radiation
3 and Worker Health. Thank you.

4 **DR. ZIEMER:** Okay. Thank you very much, Dan.
5 And I must admit, I'm a little dismayed about
6 the FOIA request, also. I'm wondering what is
7 there and why there has not been some response.
8 The request went to which agencies? I know you
9 mentioned it yesterday, but just remind me,
10 what agencies?

11 **DR. MCKEEL:** (Unintelligible) so I -- because
12 the -- one of the issues was the content of the
13 six boxes and getting more understanding of
14 that.

15 **DR. ZIEMER:** Right.

16 **DR. MCKEEL:** I sent it to DOE Oak Ridge, to
17 ORAU, to CDC/NIOSH and to the OCAS office, just
18 to make sure that everybody got a copy, and I
19 asked that the folks at ORAU coordinated that,
20 not knowing -- as I learned from the -- the
21 general counsel and Pam Bonet*, who's actually
22 helped me in the past, that they don't answer
23 FOIA requests, that they're answered by DOE Oak
24 Ridge. So -- so I did get a -- finally got an
25 answer from DOE Oak Ridge on -- it -- it was

1 dated on the 30 -- on June the 28th and I got
2 it on June the 30th. I'd gotten a three-line
3 answer from CDC, interestingly. It's just
4 marked CDA ATSDR FOIA Officer in Atlanta, three
5 lines. I showed it to Larry Elliott. Didn't
6 mention NIOSH, didn't mention that it -- they
7 had corresponded with NIOSH. They said we got
8 your FOIA request of March 10th. Here's some
9 information that's partly responsive. We're
10 waiving the fees because, you know, your bill
11 isn't high enough. And what they included --
12 what CDC included was some information that you
13 all had already been -- handed out at one of
14 the -- I think at the Cedar Rapids meeting,
15 maybe even the St. Louis meeting, that
16 supplement to SEC 001-12 that had the list of
17 contents of the six boxes. So I already had
18 that actually about the time we sent in the
19 FOIA request. So that was -- that was all that
20 was in the CDC response.

21 Then from Oak Ridge what I got was this 205
22 pages of information, and the -- the most
23 interesting -- I mean a bunch of the pages, 70
24 pages were last names, first names, with
25 basically no information except that Amy

1 Rothrock's* letter -- cover letter said that
2 they were records that still resided in the
3 classified CER vaults at Oak Ridge. Now that's
4 not exactly the same as saying what we asked
5 about, were these records still classified.
6 But presumably if they're in the classified
7 vaults, then they have to be declassified for
8 anybody to read them.

9 But the most interesting thing was this 35
10 pages of additional listing of documents, and
11 what was nice about that was that the dates of
12 all those documents were provided so you could
13 see that at least -- I think the number was 230
14 or so -- directly pertained to 1949-'57
15 Mallinckrodt.

16 Now, I don't have any way to know -- and -- and
17 -- oh, items two and three of our request were
18 specifically to find out which documents had
19 had to be declassified to get into those six
20 boxes that NIOSH came to have and that SC&A has
21 now examined, but also to find out a question
22 that I have never heard anybody address here or
23 been asked by anybody, and that is how many
24 documents that pertain to MCW remain still
25 classified. And I tried to draw the difference

1 with Amy Rothrock on the telephone in an hour's
2 conversation I had with her at the end of May
3 that I didn't consider that records that were
4 kept under the Privacy Act as classified. I
5 said I was after -- she called me to clarify
6 exactly what I wanted from them. I said I
7 don't -- that that's a different thing. I want
8 to know what records are classified, withheld
9 from a FOIA request by that exemption at your
10 place. And so, you know, it looked to me like
11 28 pages of those records were still
12 classified. And -- and then I simply took
13 those 28 pages and -- so the classified ones --
14 and -- and there were eight pages of
15 unclassified data, saw how many of them
16 pertained to that period of time that we were
17 all interested in, and again it was -- you
18 know, it was over 200 documents. And what
19 interested me is that the -- all that was
20 listed about them besides date was a title, but
21 a bunch of them had to do with uranium process
22 operations.

23 Now I thought that might be very interesting.
24 I don't know exactly what they have. All I
25 asked for was an index, hoping that it would

1 save some time to get that material. Well, it
2 actually took three and a half months to get
3 it, but in any case, I didn't ask for the
4 records themselves, so I don't know what's in
5 those bo-- I can't really see those. But we do
6 have people on your Board, we have people
7 obviously at NIOSH and we have people at SC&A
8 who have Q clearances who could get in to see
9 those records.

10 Now if they've all been captured, well, then
11 you know, that's not really relevant. If they
12 have not been captured into the Technical Basis
13 Documents, that might be highly relevant. And
14 it -- it's really late in the course, so I
15 don't know how it could happen. I can't do it,
16 but somebody should go and look at those
17 records, and -- you know, so -- so in any case,
18 that's kind of the way I feel about it. I -- I
19 do not think that FOIA request response was
20 completely responsive to what I asked about.
21 It didn't say specifically that they were
22 classified. There was no information about why
23 they were still classified. So I -- I'm going
24 to pursue that farther, but I'm really trying
25 to do something that will help get this SEC

1 petition moved along and -- and brought to
2 closure.

3 **DR. ZIEMER:** Yeah.

4 **DR. MCKEEL:** And that's really the spirit. I -
5 - I appreciate everybody's work.

6 **DR. ZIEMER:** Yeah.

7 **DR. MCKEEL:** But I -- I really am very upset
8 about what's happened about Mallinckrodt and I
9 just want to help move it along.

10 **DR. ZIEMER:** Thank you very much. I -- I don't
11 know if this -- if this is something NIOSH is
12 in a position to pursue or if we think we have
13 captured the essence of those, but perhaps
14 that's something I'd ask Lew if maybe he can
15 follow up on that. I think if there's records
16 out there that need to be captured, certainly
17 NIOSH would have an interest and certainly this
18 Board would, so appreciate that -- or maybe
19 we'll know something more by --

20 **MR. HINNEFELD:** I really don't know any
21 specifics 'cause, you know, I haven't seen the
22 list. I know that for most of the period of
23 this work that Oak Ridge ORAU team has had
24 people working in the classified vault --

25 **DR. ZIEMER:** Uh-huh.

1 **MR. HINNEFELD:** -- reviewing information that
2 may be helpful and then having it -- selecting
3 what would be helpful and then having it
4 reviewed for classification to be removed. I
5 know that's been sort of an ongoing process
6 down there for months and months, maybe longer,
7 so I don't know, though, whether those specific
8 things have been seen or not. I -- I don't
9 know that, and Dr. Toohey's no longer here, so
10 -- I doubt he would know specifically, either.

11 **DR. ZIEMER:** Right. Thank you, Stu. Let's
12 continue with comment. Hershell Gilley --
13 Gilleylen, is it?

14 **UNIDENTIFIED:** (Unintelligible)

15 **DR. ZIEMER:** Oh, okay. Larry Gassei -- Larry?
16 Did I pronounce that correctly?

17 **MR. GASSEI:** It's Gassei.

18 **DR. ZIEMER:** Gassei?

19 **MR. GASSEI:** Uh-huh. Denise asked me to bring
20 up my little situation that I have. My father
21 worked for Mallinckrodt from 1936 to 1969.
22 That's 33 years. And he passed away on
23 September 1, '69. He died of pancreatic
24 cancer. So I had filed a claim and haven't
25 received anything yet, so when notice was

1 brought out about the SEC, approval for that
2 period of '42 to '48, I seen that in the paper
3 and I contacted Denise and she told me -- she
4 says things look very favorable. You should
5 receive some notification and a payment process
6 should start. She said there'll be some other
7 forms that you have to fill out.

8 Well, that's been a while. So earlier this
9 week I decided to try to find out myself what
10 the status was and I called NIOSH and they told
11 me it was -- my claim was now transferred to
12 the Department of Labor in Denver and I should
13 call this number, speak to this individual. I
14 did, and he informed me yeah, you meet all the
15 particulars except we're waiting for a call
16 that (unintelligible) -- a verification of
17 employment as to where my father worked and if
18 he was on Destrehan or the uranium division or
19 what product line. And I said well, you know,
20 I'm -- have already given everything. And he
21 said well, we have -- waiting for notification.
22 And I said well, where does that leave me? I
23 said, you know, I got some records here and I
24 went through it -- he said well, does it state
25 that he worked on Destrehan? I said as far as

1 I know he -- that's the same Mallinckrodt that
2 we've been talking about all along. I said I
3 know there's different buildings in that, but
4 whether it's -- I didn't know exactly what he
5 was getting at. And maybe I misunderstood.
6 So I -- I looked through my papers and -- see
7 if I could have something specific, and I
8 didn't. And I asked -- and I told him what I
9 had. I called him back and told him what I had
10 and -- and I said well, don't you have all
11 this? And he said well, we're in the process
12 of -- of inquiring and trying to get this
13 resolved so we can process your claim. I said
14 well, what happens if -- if you don't hear
15 anything or get this clari-- he said well,
16 it'll go back to NIOSH for dose reconstruction.
17 With that I got a little bit ticked off because
18 I thought everything was in order and I
19 contacted Denise. And she said no, that's
20 entirely wrong because everything has been
21 appr-- if it got past NI-- NIOSH and they went
22 to the Department of Labor, everything should
23 be in order. And I'm here to say it's a little
24 bit frustrating. When you get misled, you get
25 going down the road and you're expecting

1 something favorable to happen. I've been
2 waiting for this for quite some time and -- and
3 everything that's being told to me is that
4 everything is in order for me to receive
5 compensation on that claim, and that's all I --
6 I wanted to point out and I don't know...

7 **DR. ZIEMER:** Thank you very much. I -- I don't
8 know if any of the folks that were here earlier
9 assisting with claims are here now that could
10 assist on this, but is there some way to -- it
11 sounds like a -- that Labor is trying to
12 confirm work location. Is -- is that --

13 **MS. BROCK:** I -- I took care of it, but that's
14 just an example of what goes on.

15 **DR. ZIEMER:** Oh, yeah, the frustration of --

16 **MS. BROCK:** Well, exactly. I mean it made it -
17 - it qualified the first time to even make it
18 to NIOSH for dose reconstruction, and there's
19 some confusion -- for whatever reason --
20 sometimes between the Destrehan Street plant
21 and Second and Broadway and the ether house or
22 certain terminology that's in these claims.
23 And so, again, it's very frustrating, but the
24 people that were here were very helpful and
25 then I called Labor, but just for the record,

1 we'd like to have it noted because it does
2 raise complications when situations arise such
3 as that and -- and people are asked to give
4 things that they've already sent. And if they
5 qualify for the 250 days, they're in the cohort
6 years and they've got one of the 22 cancers,
7 this should not be a big thing, made it past
8 the hump.

9 **DR. ZIEMER:** You're exactly right, and I think
10 to the extent that the folks here can help with
11 whatever verification --

12 **MS. BROCK:** And they were --

13 **DR. ZIEMER:** -- is needed --

14 **MS. BROCK:** -- wonderful. They made calls,
15 they did a wonderful job.

16 **DR. ZIEMER:** Okay.

17 **DR. WADE:** Thank you.

18 **DR. ZIEMER:** Denise, while you're at the
19 microphone, I think you did ask for comment
20 time. You want to proceed?

21 **MS. BROCK:** Certainly, sure.

22 **DR. ZIEMER:** We have one other person, Roni
23 Steiger -- Steger that was going to speak, but
24 --

25 **MS. BROCK:** Oh, there you are.

1 **DR. ZIEMER:** -- we'll take it in either order.

2 **MS. BROCK:** Did you want -- do you want to go
3 first?

4 **MR. STEGER:** Go right ahead.

5 **MS. BROCK:** Okay. And I'll try to be brief. I
6 think the first thing I wanted to state that --
7 was that I would appreciate maybe next time we
8 do a meeting like this that we try to do -- or
9 whoever does the agenda, try to make the public
10 comment period where all the Board members are
11 available. And the reason for that is because
12 thank goodness we do not have a lot of people
13 here, but many times the claimants feel like
14 this is falling on deaf ears anyway, and so
15 actually people's feelings get hurt. You feel
16 like you're talking to a wall. What they have
17 to say is very important and it is very
18 relevant and they need to say that. And I
19 think that's the reason for public comment and
20 it would be greatly appreciated if whoever does
21 the agenda could make sure to squeeze that in
22 when all the Board members are here to actually
23 hear that.

24 **DR. ZIEMER:** Right. Good point, and in fact
25 that's one of the reasons we have the -- the

1 done, so we don't know if it actually -- the
2 cancer she had came from that or not. We're
3 just sitting here for years wondering. And for
4 me and my brother and sister, it really never
5 occurred to us that maybe this was a result of
6 this employment. And it came as a shock to us
7 that possibly, you know, the government and the
8 company let these people work in this lab and
9 these diseases and these deaths and these
10 sicknesses came as a result of that.
11 And so now for five or six years we've been
12 sitting and waiting, and filling out paperwork,
13 talking to people and going to meetings. And I
14 understand there's been like 30-some-odd of
15 these meetings and still nothing's happened for
16 any of these people here. And I can't imagine
17 that we're alone, with all the people that are
18 affected by this. I just know that it's
19 personal here.

20 I would like to mention that I noticed that
21 both of these meetings that we attended were at
22 very premium hotels in the city. I can't help
23 but notice all the handouts and the paperwork,
24 and I've listened to all these committees and
25 subcontractors, and I can't help but think the

1 cost involved with just determining whether or
2 not any of these people are going to receive
3 \$150,000. And I know for a lot of people that
4 worked there and are older and are sick and are
5 dying, this \$150,000 might make a lot of
6 difference in their lives. For us personally,
7 it probably wouldn't. It's just going to be
8 the satisfaction of knowing one way or another
9 what actually happened. And it's a revisiting
10 that we really didn't want to do. And I wonder
11 if the government, in their -- I don't know
12 what you want to call it, but if they would
13 have just said obviously they had some
14 culpability, there was some wrongdoing, maybe a
15 little deceit or whatever you want to call it,
16 if they would have just decided all these
17 people were due this money and paid it, if it
18 would have cost less than to determine who was
19 actually going to get it. And that frustrates
20 me 'cause I -- you know, I look around and I
21 think well, what's it costing to do all this?
22 And if everybody would have just got this
23 money, it could have helped so many people at a
24 time where maybe they needed it 'cause they're
25 not young anymore, you know. I think about the

1 people that worked there that are still
2 suffering or still sick, and are still coping
3 with these diseases and what you could do to
4 help them. And why it's taking so long is just
5 beyond me. Hell, give them a loan, you know.
6 I don't know. It's just -- I find it very
7 difficult that the government makes it
8 necessary for each one of us to discover, maybe
9 by chance, that the existence of this
10 compensation act even existed. And then we
11 have to prove to the government that we even
12 deserve it, that it wasn't enough that we
13 worked there, blindly trusting the employer
14 that we were safe. I just think it's -- what
15 about these people, you know. I'm just
16 frustrated. I'm sorry that I had to say all
17 that.

18 **DR. ZIEMER:** Okay. Thank you, Roni, for
19 sharing with us today. And we're quite aware
20 of the levels of frustration. I recognize
21 that.

22 That completes our public comment period. I
23 want to ask -- Board members, do you want to
24 hear from Larry or can you just view the -- you
25 have his update materials.

1 **DR. WADE:** You have to view his materials.

2 **DR. ZIEMER:** Okay.

3 **DR. WADE:** We're well below a quorum now. We

4 --

5 **DR. ZIEMER:** Right.

6 **DR. WADE:** -- (unintelligible) stop.

7 **DR. ZIEMER:** I just want to point out a couple
8 of pieces of information. The list of science
9 issues -- that was distributed, was it not?

10 **DR. WADE:** Yes.

11 **DR. ZIEMER:** So you have that before you.

12 **DR. WADE:** I'll -- I'll be providing e-mail on
13 times and dates of meetings to all of you and -
14 -

15 **DR. ZIEMER:** Okay. Is there any other item
16 that needs to come before us today?

17 (No responses)

18 There appears to be none. If not, I declare
19 this meeting adjourned. Thank you very much.
 (Whereupon, the meeting was adjourned at 5:00
 p.m.)

C E R T I F I C A T E O F C O U R T R E P O R T E R**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 July 7, 2005; 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 August, 2005.

STEVEN RAY GREEN, CCR

CERTIFIED MERIT COURT REPORTER**CERTIFICATE NUMBER: A-2102**