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

MEETING BETWEEN REPRESENTATIVES OF NIOSH AND SC&A

DAY TWO

ORIGINAL

JANUARY 12 AND 13, 2005

The verbatim transcript of the above-mentioned meeting held at SC&A, McLean, VA, on January 12, 13, 2005.

1 **DAY TWO**

2 (8:30 a.m.)

3 **OPEN DISCUSSION**

4 **DR. H. BEHLING:** Good morning, everybody. We're
5 going to try to rush this a little faster than
6 even we thought yesterday because yesterday we
7 thought we would probably finish up by 12:00, but
8 if we possibly can because Mark has a departure
9 date here. In other words he may have to leave
10 this meeting as early as what, 11:00 o'clock,
11 Mark?
12 **MR. GRIFFON:** Yeah, but I can miss the last
13 few minutes.
14 **DR. H. BEHLING:** Okay, we'll try to be as
15 quick as we can and keep Mark involved in
16 all of them, but if not, if for some reason
17 we are not in the position to finish with
18 the last of these cases, we'll just have to
19 do without Mark. How about you, Mike?
20 **MR. GIBSON:** I'm fine.
21 **DR. H. BEHLING:** Are you going to be able to
22 stay here at least until lunch time, and so
23 does everybody else?
24 **MR. HINNEFELD:** Oh, he's here till lunch.
25 **DR. H. BEHLING:** Okay, but we'll try to

1 finish up by lunch time.
2 Okay, yesterday we finished all the cases
3 inclusive of the last one which was Case 13,
4 and then we skipped 14 and 15 because there
5 were no comments.
6 **MR. GRIFFON:** Mark Griffon. On those I was
7 just going to ask, we mentioned the question
8 of the format of the report and stuff. Can
9 we have that discussion maybe now in case I
10 have to leave before we get through the
11 cases?
12 **DR. H. BEHLING:** Okay, the issue here is
13 what do we do with regard to the comments
14 and the discussions that have taken place
15 yesterday and continuing today with regard
16 to how these will be integrated into the
17 revised report, realize that the original
18 report was just a draft report. The
19 Advisory Board has recommended that we make
20 some changes, and I think the discussion
21 that's going to take place in the next few
22 minutes here is what do we do with this
23 information.
24 **MR. HINNEFELD:** I just wonder, Ray -- Is Ray
25 recording yet?

1 **COURT REPORTER:** Yes.
2 **MR. HINNEFELD:** You are recording. Okay,
3 great.
4 **DR. H. BEHLING:** I guess it's going to be a
5 discussion here between Mark, Mike and Wanda
6 because they are the representative of the
7 Advisory Board and we'll listen to what they
8 may have to say on that issue.
9 **MR. GRIFFON:** Yeah, Mark Griffon. I guess
10 part of what I thought we were going to do
11 at this meeting was to sort of roll up a
12 report that could then be presented to -- in
13 a public format, and that's -- as I
14 understand it, a Board product. And I think
15 we want to try to summarize, you know, not
16 case by case, but say out of these first
17 group of 20 cases, we saw these kinds of
18 findings. And I've even been thinking of
19 sort of a graded approach to show the
20 significance or lesser significance of some
21 of them. You know, there's different ways,
22 you know, observation versus findings,
23 whatever kind of language we decide on. And
24 I think some things just come up in these 20
25 cases, lend themselves well to grouping.

1 Other things, you know, we may just have a
2 miscellaneous category, but you know some
3 are technical issues, some are procedural
4 issues --
5 **MR. HINNEFELD:** This is Stu Hinnefeld. I'd
6 like to offer as well -- Some are absolutely
7 case specific, and some have a broader
8 applica --
9 **MR. GRIFFON:** Right, right --
10 **MR. HINNEFELD:** So there's a lot of
11 opportunity for categorization, and I think
12 from a NIOSH standpoint we recognize we
13 don't play a role in this. And this is the
14 Board's report and their contractor's
15 report, so I don't have an opinion about
16 categorization except to the extent that the
17 categorization comment may influence whether
18 we feel compelled to have another opinion,
19 you know, in front of the Board. If
20 categorized in a certain fashion we may --
21 you know, for instance just like an
22 observation or something, we may not feel
23 compelled to say anything, but if it were
24 categorized in some other fashion we may
25 feel compelled to make a comment or a

1 counterpoint of some sort to put in front of
2 the Board.
3 So from our standpoint I have no role in it,
4 other than at some point we'd kind of like
5 to know how things were categorized and to
6 know whether we would have a view -- or
7 maybe that, maybe that product occurs after
8 the Board's product -- I mean that's our --
9 our situation there may occur after the
10 Board has a product. That may be actually
11 more workable.
12 **MR. GRIFFON:** Yeah, I think -- You know my
13 feeling is, at least with this first one and
14 maybe in the future ones, we can sort of,
15 the Board can establish our categorization
16 system and then SCA can adapt it, but I was
17 thinking if out of this meeting if we can
18 get comment resolution process completed for
19 the most part, then SCA can revise as needed
20 their report -- as issued last time, just
21 where revisions were appropriate, get it to
22 the Board, and then through some process the
23 Board has to generate the summary report and
24 come up with the categories and how we want
25 to categorize it, and that will be the

1 report presented to the public.
2 **MR. HINNEFELD:** Right, and I think our
3 reaction to the categorization should
4 probably occur after the Board's product, I
5 would think.
6 **MR. GRIFFON:** Right, right.
7 **MS. K. BEHLING:** This is Kathy Behling. I'm
8 just wondering if the first -- the first go-
9 around with this that after this meeting if
10 we can sit down with our draft report and
11 maybe at the end of each case put in an
12 additional paragraph that states what came
13 from this meeting, possibly, if there were
14 issues resolved, if we agreed to disagree,
15 maybe add that as a final paragraph to the
16 cases, and then we submit that report to the
17 Board.
18 **MR. GRIFFON:** Yeah, I think that would be
19 helpful. I've been kind of making -- that's
20 why when I wasn't clear about this meeting I
21 was asking what's the what's the action
22 here, are we in agreement or is there a
23 disagreement, or pending further research on
24 NIOSH's part or SCA's part, so if you can
25 put that kind of summary I think that would

1 be helpful.
2 **MS. K. BEHLING:** And one other thing, that
3 we require, in looking back to our notes,
4 that we contact Stuart just to verify is
5 this what we agreed on.
6 **MR. HINNEFELD:** I hope I will remember.
7 **MS. K. BEHLING:** Okay.
8 **DR. H. BEHLING:** Yeah, I think to sum it up,
9 one of the things SC&A will have to do and
10 may in fact then penetrate the Board in
11 whatever decision they may make, how to
12 process this, this transcript, and make it
13 available to the public, for us to rewrite
14 the report, amend the report with all of the
15 changes we agreed upon at this meeting, and
16 then perhaps add to each of the cases maybe
17 a final table that says we agreed -- certain
18 things, we resolved these issues, and we may
19 even have some kind of a scorecard at the
20 end that's basically defines all of the
21 issues that a basic review was to look at
22 and then provide a score -- For instance,
23 one of the categories, we have a slide -- in
24 fact Kathy, go back to slide number two.
25 That may prove to be a roadmap for us to

1 follow. The very first opening slide. This
2 is -- again for those -- and I'm sure Wanda
3 and Ray don't have their handout yet --
4 **MS. MUNN:** Wanda now has hers.
5 **DR. H. BEHLING:** But in our handouts there
6 is a slide number two entitled, "Criteria
7 for Conducting Basic Review as Defined by
8 NIOSH." And there are various categories.
9 The first one, the big heading is "Review of
10 Data Collection," and it says, "In behalf of
11 a basic review we would evaluate whether
12 NIOSH receives all measured data for the DOE
13 or AWE site from any relevant data source or
14 repository."
15 But in the case of the 15 cases that involve
16 non-AWE, that may simply involve a check-off
17 that says NIOSH requested such-and-such data
18 from the DOE, and that includes dosimeter
19 records, bioassay data, radiological
20 incidents -- And that's just nothing more
21 than a check-off and we can have a
22 consultation that says yes, we know what
23 that data is, we received it, and the data
24 was in fact supplied by the Board, in the
25 case of missing data they may even have

1 something there. It's just a check-off
2 review in that case.
3 But the critical ones are in B -- in section
4 B in this basic review has the title,
5 "Review, Interview and Documentation
6 Provided by Claimant." That's another
7 check-off that says is the CATI report
8 complete? And for instance are there issues
9 in the CATI report that were not addressed
10 by the -- in the dose reconstruction report
11 -- with perhaps a statement that says well
12 the claimant says he was monitored but
13 further checks seem to suggest that maybe
14 the claimant was in error or something like
15 that. It will be a subjective review that
16 says the CATI report is in place, it's
17 either completely consistent with the dose
18 reconstruction report, or in some instances
19 as we so talked about yesterday in behalf of
20 a couple of the claims there were
21 differences of opinion that may require some
22 resolution in terms of did the NIOSH people
23 follow up to see if in fact the claims made
24 by the interviewee was supported by the
25 facts.

1 And so that again is a fairly simple check-
2 off list that says yes, there's consistency
3 or no, there's a discrepancy, but I think we
4 can resolve discrepancy based on
5 circumstantial evidence.
6 And the big ticket item is C, which is
7 "Review of Internal and External Dose
8 Estimates." There are a whole series of
9 checklists here that again lend themselves
10 to some kind of re-evaluation as to whether
11 or not we agree, and we don't have to
12 necessarily deal with for instance a four
13 millirem would substitute with an eight
14 millirem, because they're inconsequential.
15 We'll try to exclude the nonsensical.
16 And I'll have to say our review of the first
17 20 cases was really a test case, and
18 admittedly when I took this one on I
19 basically gave instructions to all of the
20 people who were part of the SC&A team and
21 said verify each number and don't worry
22 about if it's eight millirem or ten
23 millirem. If you think it's ten millirem,
24 they said eight, check it off. And it was
25 strictly -- and I think I put it in each of

1 the cases that says we don't care if it has
2 any significance. What we really did was to
3 go through and somehow other try to
4 understand what the dose reconstructor did
5 and try to match his number and then
6 secondly determine whether that number is
7 correct.
8 Now I think under a more -- I guess under
9 more mature review -- we're going to stop
10 doing this. We're going to say if it's
11 close enough in the ball park, if it's
12 inconsequential, we're not going to continue
13 this for the remainder of our review. This
14 nit-picking, it's like we were H&R Block
15 auditors of a Internal Revenue document, and
16 every single nickel and dime had to be
17 accounted for. We're probably going to stop
18 doing this in the future, knowing that it
19 has no consequence, and we're going to be
20 considerably more tolerant of issues. I
21 think the first go-around was fair to
22 demonstrate that SC&A has people who know
23 what they are doing and if in each of these
24 cases there was a minor discrepancy that had
25 no consequence, we were willing to make that

1 statement only to demonstrate that we
2 understand the procedures, we know what's in
3 them, and for whatever minute reasons there
4 was a discrepancy, we would identify. I
5 believe we're going to stop doing that. If
6 we realize that these differences are minor
7 with no consequence we will probably in the
8 future stop doing this kind of thing. We
9 may even make a note but not make an issue
10 out of it.
11 And so we will have a checklist that at this
12 point will moderate our criticism to the
13 point where these differences that we did in
14 fact identify in the original first 20
15 reports -- and as I've said it was done for
16 the simple reason to give the Board the warm
17 and fuzzy feeling that SC&A knows what the
18 procedures call for and if there are minor
19 discrepancies in it, we're not going to sit
20 there and make an issue out of it because
21 they have no significant impact on the final
22 statement, whether or not a claim is
23 compensable or not. So I think having said
24 that, we can at this point be a little more
25 relaxed about our critique, and go on from

1 there.
2 **MS. K. BEHLING:** This is Kathy Behling. I
3 just wanted also to point out that last
4 week, early last week, I started to work on
5 a checklist that's very similar to the
6 checklist that the Advisory Board approved
7 for Task Three, which was our review of
8 procedures. And I used that similar type of
9 format although I may modify it now based on
10 what (unintelligible) just said.
11 I thought I would make this checklist. I'm
12 utilizing this slide two, the basic review,
13 and going through these categories that Hans
14 just mentioned, the data collection, the
15 interview process, and the internal and
16 external dose estimates. And I was actually
17 generating questions for the reviewer that
18 would be a yes/no type of answer and then
19 have a comment column, so that if it's no,
20 they would say why the answer is no.
21 However, if you would prefer us to change
22 that to a rating system like we did in Task
23 Three, which is a one through five where one
24 being the yes they were correct and
25 everything they did -- Five is all correct,

1 I'm sorry, five is correct, it means yes
2 that everything went fine and one means no,
3 there were a lot of errors. And there is a
4 range between one and five. But we were
5 going to develop that and present that to
6 the Board to see what their suggestions, for
7 the remainder of the audit.
8 **MR. GRIFFON:** Mark Griffon. I think that
9 would be -- I think that's a great idea.
10 I'm not sure that my first reaction is the
11 yes/no might be fine and then maybe if we
12 decide how we're going to define in our
13 summary report, as the Board, a level -- the
14 level of significance question. Is it going
15 to be high, medium, low? Is it going to be
16 -- you know -- but some sort of -- and then
17 maybe you can just include that column "Yes,
18 but the level of significance is low."
19 "Yes, but the level of significance is
20 high." You know, something like that. I
21 think that's a good thing for your future
22 reviews. Also because it will be kind of a
23 summary front end to your case reviews, and
24 it will also, I think, your reveiwers with
25 consistency of reviews 'cause there's been a

1 variety obviously of different approaches.
2 So, yeah, I think that's useful, but I
3 think, I think, I think the Board -- I think
4 we need to discuss on the Board how we want
5 to present that level of significance
6 question. I don't know that I can ask you
7 to do that in a draft, you know, in a
8 working group or not, you know --
9 **MS. K. BEHLING:** Yeah, I will continue to
10 develop this checklist and then Hans can
11 bring it along and present it at the next
12 meeting hopefully.
13 **MS. MUNN:** This is Wanda Munn. I certainly
14 approve the concept of a checklist as Hans
15 and Kathy has suggested and that's been
16 established. I really don't see any other
17 legitimate way where more than one or two
18 people could view their results of the
19 overview and get anything out of it.
20 The notes that I made yesterday, Mark,
21 indicated several things that I thought
22 NIOSH and SCA were going to try to resolve a
23 little more concretely between them. Those
24 included, or perhaps the checklist could
25 include some statement with respect to the

1 differences in which revision of ICRP was
2 used and whether that use was justified or
3 not.
4 We talked yesterday about issues over the
5 High Five and whether those were going to be
6 refined a little better so that everyone
7 knew how to use them, and there were the
8 issues about organically-balanced tritium.
9 I personally am not convinced that issues
10 over organically-balanced tritium are going
11 to be significant enough in the overall case
12 load that we have to spend too much time on
13 them, but if our reviewers feel that those,
14 that there are issues of magnitude there,
15 that we should probably say something about
16 it.
17 I'm just not at all sure that the possible
18 maximum consequences from resolving that
19 down to the gnat's eyebrow is going to
20 affect very many cases. But the issue of
21 clarifying whether the dose calculation
22 methods -- For example, we had the one case
23 where the method, the TLD of review methods
24 were inaccurate. If there is additional
25 instruction or guidance that we need to give

1 to the original dose reconstructors with
2 regard to the accurate utilization of
3 uncertainty issues in TLD readings, then
4 perhaps that's something that we, the Board
5 members, need to think about. I'm not sure
6 that they -- I haven't gone back to look at
7 the process to see whether those
8 instructions are in fact adequate or whether
9 we might have a small glitch there.
10 And I guess one of the statements that was
11 made yesterday, I would hope, Mark, that any
12 draft that the working group would bring to
13 the Board would include the statements that
14 were made yesterday with respect to the fact
15 that established science not be sacrificed
16 in the name of attempting to provide the
17 best possible benefit for the claimant.
18 **MR. GRIFFON:** Yeah, I agree. I think we
19 made those statements on the record that if
20 the science is there that I don't think that
21 NIOSH or ORAU has the intent to just be
22 claimant favorable for the sake of claimant
23 favorability if they've got this
24 overwhelming data and science exists, then
25 they've got to use that.

1 **MS. MUNN:** Agreed, I just think those words
2 need to be in any report we make to the
3 larger Board.
4 **DR. H. BEHLING:** This is Hans Behling. I
5 think one of the things that we have to come
6 to realization is that the three tasks that
7 currently exist for SC&A to complete and
8 continue working on, which is Task One,
9 Three and Four, are really interrelated.
10 And coming to the issue of why do we have
11 some of these problems -- What was the basic
12 root cause for some of the issues that we
13 were addressing between NIOSH and SC&A? And
14 I have to say -- this is my opinion and
15 someone can disagree with that, but I think
16 the primary problem for the differences that
17 we discussed yesterday between NIOSH and
18 SC&A are not the fault of the dose
19 reconstructor, I believe. I think we have
20 some very, very fine people out there who
21 are doing this, but I believe there are
22 problems associated with which procedures
23 are to be used, under what conditions.
24 And some of the procedures, quite honestly,
25 as pointed out to me by Tom, yesterday, I

1 personally -- and I can't tell you how many
2 times I've reviewed some of these
3 procedures, and there's still some measure
4 of doubt how to use them. So there is an
5 issue of procedure, the clarity, some of the
6 procedures are not consistent, and if I have
7 to say what is root cause for some of these
8 issues, it is possibly too many procedures,
9 too many procedures that are not necessarily
10 consistent among themselves, and at times
11 are very ambiguously written where no matter
12 how much time you spend reading, rereading,
13 and trying to figure out what it is you were
14 supposed to do, in the end you still don't
15 really know. And I think that is basically
16 root cause.
17 I do not fault the dose reconstructors --
18 **MS. MUNN:** Nor do I.
19 **DR. H. BEHLING:** I think there are too many
20 instances where these people are probably
21 stretched to the max in trying to establish
22 what it is they should be doing, and I think
23 case in point, and I don't think Stu or Tom
24 would argue, is the issue of uncertainty
25 associated with dose of record. It is a

1 very difficult thing for them to tackle.
2 And we see this over and over, where they
3 simply refuse to do it, or if they allow
4 estimate for uncertainty, default to a
5 doubling of dose which exempts them from
6 establishing the uncertainty.
7 And I understand that, and I think everyone
8 has to realize that we have imposed a burden
9 on the dose reconstructors with technical
10 sophistication and detail that is
11 inefficient and is probably unwarranted
12 because it really won't make a big
13 difference. And so I think part of the
14 problem is the issues that we discussed, the
15 root cause of those issues are probably too
16 many procedures, too many uncertainties how
17 to apply these procedures consistently, et
18 cetera.
19 For instance, in the case of occupational
20 medicine -- occupational radiation exposure,
21 every single site profile has its own
22 version of the Ron Catherine report, which
23 is a procedure. And Ron Catherine, being
24 the health physicist that he is, went into
25 great, great detail in categorizing organ

1 doses based on the time frame and even
2 (unintelligible) the rest of the facilities
3 and then when I look at the dose
4 reconstruction, no one uses them.
5 **MS. MUNN:** Um-hmm.
6 **DR. H. BEHLING:** He will say, oh, for
7 efficiency reasons we will, for instance,
8 default to the highest dose which for some
9 instance was a **breast lateral dose, which
10 is in some instance, 84 millirem, when in
11 fact the organ of concern was the colon and
12 rectum. At that point it's a fraction of
13 one millirem. And apparently according to a
14 spreadsheet that we've never seen, people
15 have used that as a default value, which
16 seems to say, well, which procedures did
17 they use? They didn't use any procedures.
18 They didn't use the site profile, they
19 didn't use the Ron Catherine, and they went
20 to a spreadsheet that allows them to use an
21 organ dose that is far removed from the
22 organ of interest. And so for efficiency
23 purpose, they opted to assign a very high
24 dose, when in fact the procedures group --
25 which basically allow you to go down this

1 list on a table, say well, here's the code.
2 Give them one E minus four millirem for each
3 exposure, but instead they opt for a lateral
4 **breast of the dose, which to me doesn't
5 make scientific sense.
6 And again, this exemplifies the problem with
7 too many procedures that are not consistent.
8 **MS. MUNN:** I agree, Hans. This is Wanda.
9 Anyone I think who has read the procedures,
10 or even attempted to read the procedures,
11 would have great sympathy with the dose
12 reconstructor. And I believe your
13 assessment of the base cause is probably
14 quite accurate.
15 **MS. K. BEHLING:** This is Kathy Behling.
16 Just to add one more issue, and I know we've
17 discussed this yesterday quite a bit, but
18 just to also sum up. One of the
19 difficulties that we had as reviewers -- and
20 I know that NIOSH is fully aware of this,
21 and at this point I'm sympathetic to the
22 fact that they have a lot of pieces to do
23 here and they didn't have a whole lot of
24 time to write a very thorough dose
25 reconstruction report, but that was also

1 such a frustration for us because we would
2 get one paragraph that would say the photon
3 missed dose -- We would get a paragraph
4 explaining that we ended up using this, and
5 these procedures, and this was the dose, and
6 we had no other choice but to wade through
7 all of the procedures, all of the documents
8 that we had, and reproduce that number down
9 to the last decimal point, just because we
10 weren't given that road map, and I know
11 NIOSH is aware of that.
12 So, but that was also something I think was
13 beneficial that has come out of all of this
14 for both NIOSH and SC&A.
15 **MR. GRIFFON:** Yeah, I think that -- I mean
16 that gives us a path for -- and I agree with
17 your comments, Wanda, and I think maybe the
18 Board has to grapple with this. And I'm not
19 sure, it might be possible for our work
20 group, on a separate phone call, to maybe
21 draft something from -- you know, but I
22 don't know of the timing here 'cause we sort
23 of have to wait for SCA to sort of finalize
24 their report and by the time that happens we
25 may be close to the date for the Board

1 meeting anyway, so --
2 **MS. MUNN:** We probably will be.
3 **MR. GRIFFON:** Yeah.
4 **MS. MUNN:** I would appreciate it, Mark,
5 personally, if you would be willing to put
6 together at least a base outline of what you
7 feel might go into our report, and that way
8 Mike and I would have an opportunity to have
9 a ladder to stand on.
10 **MR. GRIFFON:** Yeah, and Tony and Rich, yeah.
11 And I'll, since Tony is really chairing this
12 work group, I'll draft from what we've said
13 here and I've just got some, this is a good
14 refresher here this morning, but I can draft
15 some general thoughts and general ideas on
16 ways to categorize and then we have
17 something to maybe we can go through a
18 couple of edits on e-mail and then bring a
19 draft to the meeting --
20 **MS. MUNN:** That sounds appropriate to me.
21 **MR. GRIFFON:** Okay.
22 **MR. HINNEFELD:** This is Stu Hinnefeld. I
23 did want to just mention -- Wanda mentioned
24 a couple of issues that we agree probably
25 deserve additional conversation for

1 resolution, the organically-balanced tritium
2 and the Savannah River High Five. I believe
3 we said that would be resolved in the
4 Savannah River Site Profile Review Task, in
5 the Task One, in the conversation there with
6 NIOSH. So rather than have this group, so
7 we wouldn't expect to resolve that as part
8 of this group.
9 **MS. MUNN:** Good, thank you.
10 **DR. H. BEHLING:** Okay, I guess we have come
11 to some conclusion about what we are going
12 to do next in revising our draft report.
13 **PRESENTATION/DISCUSSION OF ISSUES FOR CASE #16**
14 **DR. H. BEHLING:** We can now go on to Case
15 Number 16, and Case Number 16, let me see
16 here, is a Rocky Flats claim. The
17 employment period for this individual was
18 through so he was there
19 approximately He worked at
20 multiple locations at the Rocky Flats site
21 and was an .
22 The assigned dose, that was largely a
23 hypothetical dose, was 11 rem, whole body,
24 and the cancer in question was the rectum.
25 Based on the dose and the cancer the POC for

1 that individual was .45 percent, less than a
2 half a percent. And so having said that I
3 will initiate this conversation by turning
4 over to Stu who will talk about Issue Number
5 One in behalf of this case.
6 **MR. HINNEFELD:** This is Stu. Issue Number
7 One for Case 16 is that NIOSH incorrectly
8 interpreted the DOE, dosimetry data, by
9 assuming that the energy employee was
10 monitored on a monthly basis when in
11 actuality there was a quarterly badge
12 exchange requested.
13 In looking at the case it appears the dose
14 reconstructor utilized an overestimating
15 technique that's described in the Technical
16 Information Bulletin Number Eight. And
17 there are certain (unintelligible)
18 overestimating approaches there, including
19 sort of a standard limited detection, a
20 presumption of 12 exchanges per year, and
21 then I believe a overestimating adjustment
22 factor of two to ensure that it's an
23 overestimate. This particular technical
24 information bulletin was developed for use
25 at essentially (unintelligible) sites as an

1 overestimating technique and it was -- the
2 approach was developed relatively early on
3 in the dose reconstruction program before
4 very many site profile documents had been
5 completed, and it was intended to allow an
6 approach to take some population of claims
7 from these sites and go ahead and do dose
8 reconstructions before the research
9 necessary to the site profile, for all those
10 sites, was done. So it was an
11 overestimating technique that was used for
12 that purpose. It was developed for that
13 purpose.
14 Now in matter of practice it's not
15 necessarily true that the use of this
16 discontinued once the site profile was
17 published. Once this technique was
18 established, even after a site profile was
19 published, it has been acceptable to
20 continue to use its overestimating technique
21 for a certain select number of cases, so it
22 has continued on in that, in that, in that
23 vane, but that's the basis for the technique
24 that was used here and in this context.
25 **DR. H. BEHLING:** Let me just comment. I'm

1 fully aware of the document that was used to
2 come up with this estimate of assumed doses,
3 missed doses because it is in fact a
4 document that allows the dose reconstructor
5 to estimate on a blanket scale the total
6 number of missed doses based on years of
7 service and simply multiplying those years
8 by the number of exchanges. Now, and again
9 this is in concert with what was previously
10 discussed. When in fact you have real dose
11 -- and this is for I guess we have to come
12 to some conclusion as to how we treat these
13 kinds of issues. I looked at the DOE
14 records in behalf of this individual and
15 realized, based on DOE records, that he was
16 monitored on a quarterly basis, which is now
17 a matter of scientific fact or documentation
18 fact. This is reasonable to assign 12
19 missed doses per year when in fact we know
20 that he was only monitored quarterly. And
21 again, one could say for efficiency
22 purposes, it eliminates -- by invoking this
23 particular procedure, it obviates the need
24 to even look at the records, which is time
25 consuming. And one could justify it in

1 saying well, in this case by looking at the
2 cancer and the low doses why would we invest
3 even 15 or 20 minutes in scanning through
4 the DOE records to realize he was only
5 monitored quarterly, when we can go on a
6 blanket assumption that is claimant
7 favorable and assign 12 missed doses per
8 year. And I understand that efficiency, but
9 it is again an issue in our case, in this
10 first 20 cases of review, where we said can
11 we really match the records against the
12 actual assigned doses? And the records
13 clearly show this person was only monitored
14 quarterly.
15 So we identified, or we gave it as a
16 citation, but again an argument can be made
17 for efficiency reasons we simply went
18 overboard and assigned 60 missed doses when
19 in fact we only needed to assign 15. In
20 fact, actually only 11 because a part of
21 those quarterly doses were actually
22 positive. So that the dose reconstructor
23 opted for a maximum of 60, even though they
24 were only quarterly and they were obviously
25 some quarters where the dose was positive