# 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

WORKING GROUP

## ADVISORY BOARD ON

RADIATION AND WORKER HEALTH

## PROCEDURES REVIEW

The verbatim transcript of the Working Group Meeting of the Advisory Board on Radiation and Worker Health held telephonically on Nov.

7, 2007.

STEVEN RAY GREEN AND ASSOCIATES NATIONALLY CERTIFIED COURT REPORTERS 404/733-6070

# CONTENTS

Nov. 7, 2007

OPENING REMARKS	6
MATRIX CONSTRUCTION	11
ACTION ITEMS	55
RESUME MATRIX ITEMS	91
DISCUSSION OF THIRD SET	140
RECAP OF ACTION ITEMS	144
COURT REPORTER'S CERTIFICATE	148
RESUME MATRIX ITEMS DISCUSSION OF THIRD SET	91 140

#### TRANSCRIPT LEGEND

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

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

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

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

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

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

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

# PARTICIPANTS

(By Group, in Alphabetical Order)

## BOARD MEMBERS

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

EXECUTIVE SECRETARY

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

## MEMBERSHIP

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

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

1

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

## IDENTIFIED PARTICIPANTS

ANIGSTEIN, BOB, SC&A BEHLING, HANS, SC&A BEHLING, KATHY, SC&A BRACKETT, LIZ, ORAU CHANG, CHIA-CHIA, NIOSH ELLIOTT, LARRY, NIOSH HINNEFELD, STUART, NIOSH HOMOKI-TITUS, LIZ, HHS HOWELL, EMILY, HHS KOTSCH, JEFF, DOL MAURO, JOHN, SC&A OSTROW, STEVE, SC&A SIEBERT, STEVE, ORAU SMITH, MATTHEW, ORAU THOMAS, ELYSE, ORAU

1	PROCEEDINGS
2	NOV. 7, 2007
3	(10:00 a.m.)
4	OPENING REMARKS
5	DR. WADE: This is the work group on
6	Procedures of the Advisory Board chaired by
7	Ms. Munn, members Gibson, Griffon, Ziemer,
8	Robert Presley is an alternate. I've
9	identified that Munn, Gibson and Ziemer are on
10	the call. Is Mark Griffon with us?
11	(no response)
12	DR. WADE: Robert Presley?
13	(no response)
14	DR. WADE: Are there any other Board members
15	on the call other than those identified as
16	members or alternates to the work group?
17	(no response)
18	DR. WADE: Okay, so we have three members of
19	the work group. There are four regular
20	members, and that's fine. We don't have a
21	quorum of the Board. What I would do is ask
22	that we do some introductions so that we all
23	know, particularly the principals. And let's
24	start with members of NIOSH or the ORAU
25	extended team who are on the call,

1	participating actively on the call.
2	Again, this is Lew Wade. I work for
3	the NIOSH Director, and I serve as the DFO for
4	the Advisory Board.
5	MR. ELLIOTT: This is Larry Elliott. I
6	serve as the Director for the Office of
7	Compensation Analysis and Support.
8	MR. HINNEFELD: This is Stu Hinnefeld,
9	Technical Program Manager for OCAS in
10	Cincinnati.
11	DR. WADE: Other NIOSH/ORAU team members?
12	MS. THOMAS: This is Elyse Thomas with the
13	O-R-A-U team.
14	DR. WADE: Welcome, Elyse.
15	MR. SMITH: Matt Smith, the ORAU team.
16	DR. WADE: Welcome.
17	MR. SIEBERT: Scott Siebert, ORAU team.
18	DR. WADE: Welcome.
19	Other NIOSH or ORAU?
20	(no response)
21	DR. WADE: How about SC&A team?
22	DR. MAURO: Yes, this is John Mauro from the
23	SC&A team.
24	MS. BEHLING: Kathy Behling of SC&A.
25	DR. BEHLING: Hans Behling, SC&A.

1	DR. ANIGSTEIN: Bob Anigstein, SC&A.
2	DR. WADE: Other members of the SC&A team?
3	(no response)
4	DR. WADE: Are there other federal employees
5	who are working on this call?
6	MS. HOMOKI-TITUS: This is Liz Homoki-Titus
7	with HHS.
8	MS. CHANG: This is Chia-Chia Chang with
9	NIOSH. I did not get Wanda's agenda. Could
10	someone e-mail that to me, please?
11	MR. ELLIOTT: I'll send it to you, Chia-
12	Chia, Larry.
13	MS. HOMOKI-TITUS: Hey, Larry, I didn't get
14	it either, and I assume that Emily probably
15	didn't. Can you include us on that e-mail?
16	MR. ELLIOTT: Will do.
17	MS. HOMOKI-TITUS: Thanks.
18	DR. WADE: Okay, beyond Chia-Chia, any other
19	feds on the line?
20	MS. HOMOKI-TITUS: Lew, Emily Howell should
21	be joining us in a few minutes.
22	DR. WADE: Thank you.
23	MR. KOTSCH: Jeff Kotsch is here with Labor.
24	DR. WADE: Jeff, as always, welcome, thank
25	you for joining us.

1	Other feds?
2	Are there workers, petitioners,
3	representatives of members of Congress or
4	anyone else who would like to be identified
5	for the record as being on this call?
6	(no response)
7	DR. WADE: Any others who'd like to be
8	identified?
9	(no response)
10	DR. WADE: One last caution about etiquette.
11	We're doing real well. We had a rough call
12	last week I believe it was so again, if at all
13	possible, mute the instrument that you're
14	using if you're not speaking, obviously. Try
15	and use a handset when you speak although we
16	do understand Wanda's special circumstances,
17	the Chair.
18	But again, for the rest of us try and
19	use a handset if at all possible and be very
20	aware of background noises. Last week we had
21	someone who had put the phone on hold and then
22	the background music would play, and it's
23	impossible to conduct business. So think
24	about those things as you do business.
25	As I had mentioned to the work group

1	Chair, I'll have to leave this call in a half
2	an hour or so, and I'll identify when I do.
3	Chia-Chia Chang will serve as designated
4	federal official and Emily and Liz are on the
5	call to deal with any legal issues. If I have
6	to be reached, Chia-Chia has a number to reach
7	me. So, Wanda, please begin.
8	MR. GRIFFON: Hey, Wanda and Lew, this is
9	Mark Griffon. I joined after you were already
10	in the middle of introductions.
11	DR. WADE: Good, Mark, thank you, now the
12	work group is whole.
13	MS. MUNN: Mark, did you get the agenda all
14	right?
15	MR. GRIFFON: Yeah, I did. Thank you,
16	Wanda.
17	MS. MUNN: And Liz and Emily, I should be
18	including you as a standard thing on the
19	distribution. I guess I haven't been doing
20	that. If one of you would send me at your
21	convenience telling me which or both of you
22	you would like to have notified when I send
23	these things out, I'll include you in a
24	standard mailing.
25	MS. HOMOKI-TITUS: Okay, that would be

1 great. We'll provide you with our e-mail 2 addresses. 3 MATRIX CONSTRUCTION 4 MS. MUNN: Now then we are hoping that all 5 of the members of our work group have in their 6 hands a copy of the format, the suggested 7 format that our subgroup worked with Kathy on 8 putting together earlier in the week. Do you 9 all have that? 10 (Members replied affirmatively.) 11 MS. MUNN: Good, I sent it out and hoped 12 you'd have an opportunity by now to take a 13 look at it. I think what the subgroup tried 14 to do was to capture all of the issues that we 15 had discussed in full work group sessions 16 while we were in Naperville. Kathy very 17 helpfully put this all together for us and 18 after some suggestions that she got back from 19 us, provided us with this sample of what the 20 entire package would look like. 21 As you probably are aware just from thinking about it, issues tracking matrix for 22 23 the Procedures review is going to be a bulky 24 document. So I hope that as we seek 25 resolution on something, that page will drop

1 out of our active group and go into what would 2 be an archival that we've done. But the 3 issues tracking system, the one-liner, would 4 in my view continue to accumulate as we go 5 along. 6 Kathy, was that your thinking? Am I 7 correctly having what you had in mind when you 8 put this together? 9 MS. BEHLING: Well, I'm going to defer that 10 question to John. He has made up this more 11 complex matrix initially, and I'm not sure if 12 he thought that these longer one-page matrices 13 would go away at some point in time. But I 14 believe that was the thought, that once an 15 issue has been resolved it would be something 16 that would be archived. But we would still be 17 able to track it through the table up front, 18 the one-liners, to let us know that, yes, this 19 item has been closed. 20 Am I correct there, John? 21 DR. MAURO: Yeah, in fact, I guess where we 22 are right now in our thinking is that the one-23 liners won't be always complete. In fact, as I understand it, direction from the previous 24 25 work group meeting, the one-liners would

1	contain all, the first set, the second set and
2	the recently issued third set. So in one
3	place there would be one line assigned to each
4	finding associated with every procedure ever
5	reviewed collectively on the project. And
6	that would be, stand as a living document.
7	It would probably be on the order of
8	ten or 12 pages. I think it's about seven
9	pages right now and contains many or hundreds
10	of findings. But they would all be there so
11	that one could quickly go down the one-liners
12	and see which ones are open, which ones are
13	closed, which ones have been transferred. So,
14	yeah, we did not anticipate that would be
15	archived. That would always be complete.
16	Now with regard to the more extensive
17	sheets, the one where you have all the dates,
18	the tracking, which I will eventually get
19	into, we could either way. Namely, we could
20	keep, right now I guess my thought was we
21	would keep them, the set, like for example the
22	set you have right now before you that we
23	prepared originally, and now, of course, we've
24	been revising. The idea was that that would
25	be coupled back to one of the three-ring

23

24

25

binder reports.

2 In other words, there would be, 3 there's a three-ring binder for set one. 4 There's a three-ring binder for set two, and 5 now recently you received a three-ring binder 6 for set three. And that the question we could 7 ask you I guess really now I'll punt back, 8 right now the thought was that we'd have a 9 complete thick package for, a separate one for 10 the first set, a separate one for the second 11 set, and a separate one for the third set. 12 However, if you would like, we could integrate 13 that just like we're integrating the one-14 liners. 15 And also if you would like, as issues 16 or findings are closed or transferred -- this 17 is your call, of course, closed would be more 18 appropriate -- we could pull that from the 19 big, thick package or not. I mean, that's 20 really, so we would have one which we would 21 call our working package which would only 22

contain open and active findings. But behind that, of course, in the archives there would be a complete package which would have everything in it. So we're available to do it

1	whatever way you folks would like.
2	DR. ZIEMER: Wanda, this is Ziemer. I'd
3	like to make a suggestion on that. I think
4	John's suggestion that we have an open working
5	set of papers is more practical. I don't
6	think we want a new copy every time of closed
7	items and all those pages. Once an item is
8	closed, I'd like to see it archived. We could
9	all have the binders or whatever with the
10	closed items in it.
11	But I don't think every time we meet,
12	we're going to want to have a new copy of
13	those closed items. It would seem to me that
14	just the open items, we would have the packet
15	of the open items which are ones which are
16	changing each time we meet. Once they're
17	closed it seems to me it makes, there's no
18	reason to get a fresh copy of the closed items
19	every time.
20	MS. MUNN: I agree.
21	Other feelings about that?
22	MR. ELLIOTT: Yeah, I agree with that.
23	MS. MUNN: My only variance with John's
24	vision is a small one. I'd envisioned first
25	of all binders with the original findings in

them which we probably will read at the time that they come to us and more than likely will not refer to very often after that. But that whole point in this matrix is to capture the essence of the findings, all of them. There would be, once issued and separated into the matrix, they would become a part of the archive itself. My vision would be that our active list, our active package, would include, would be both the one-liners and the individual pages for the open ^.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

DR. ZIEMER: Yeah, this is Ziemer. I agree with that. I think that makes sense to have the, the summary should have everything on it as John described it, but as far as the detail, the working package would be the open items.

18 MS. MUNN: If we, other people plan to do 19 this individually, but my thinking was I would 20 put together a gigantic three-ring binder with 21 those two items in it. And as we close items, 22 I would remove that sheet and place it in the 23 archives as a closed item that would show on 24 our one-liner but not elsewhere. So that's my 25 personal view of how I expect to juggle that.

1 Anyone else? 2 DR. ZIEMER: Well, this is Ziemer again. Ι 3 just want to ask. You had a working group of 4 the working group last week, and what was 5 their sort of overall conclusion on the sample 6 tracking matrix that John provided or Kathy 7 provided? 8 MS. MUNN: We were pretty much of a mind in 9 the framework of what I've just given you 10 without that just one or two twitches, we may need some minor revisions of one sort or 11 12 another. But that primary change that we 13 made, the original draft that was provided to 14 us for our -- was to make sure that dates were 15 added to all of these activities so that we could track the procedures that we're looking 16 17 at alphabetically. 18 And it gets confusing jumping back and 19 forth from the first group to the second group 20 to the third group. There's no rhyme or 21 reason to the order in which these things 22 could be coming to us before. Suggested that 23 the order be alphabetized, that we add the 24 date column so that it's easy to find the item 25 alphabetically. There's the one-liner or the

complex.

1

2 DR. MAURO: Wanda, this is John. I have a 3 point of clarification regarding what you just 4 stated. When we compile these lists, whether 5 they're the one-liners or the more complete 6 documents, you had mentioned alphabetical. 7 When we last spoke it was my understanding 8 that they would be first grouped of whether 9 they were OTIBs or OCAS documents. 10 In other words, O-R-A-U-T documents or 11 OCAS documents. And then within that grouping 12 they would be grouped according to their 13 number, namely, the lowest number first, you 14 know, OTIB-0001, OTIB-0002, OTIB-0003 would be 15 the order in which they would appear under the 16 category called OCAS as opposed to 17 alphabetical. We certainly could do it 18 alphabetical according to title, but when we 19 last spoke I did get the impression that we were leaning more toward numerical sequencing. 20 21 MS. MUNN: Numerical sequencing after they 22 have been sorted by their alphanumeric. The 23 order in which Kathy provided the one-liners 24 is exactly what I had in mind. 25 DR. MAURO: Okay.

1 DR. ZIEMER: Could you clarify -- this is 2 Ziemer again -- so they would be sorted first 3 as to whether they're an OCAS or an OTIB or 4 whatever and then by number? 5 MS. MUNN: It would be sorted as to whether they were OCAS or ORAUT and then by number. 6 7 DR. ZIEMER: Yes, okay, thank you. 8 DR. MAURO: Okay, good. When you said 9 alphabetical I was thrown a bit by that. Ι 10 wasn't quite sure what you were referring to. 11 MS. MUNN: Well, to me, in my mind that's 12 alphabetized. 13 DR. ZIEMER: Is the sample matrix that was 14 sent out and dated modified on the seventh of 15 November? Is that the one that was modified 16 based on the subgroup's review? 17 MS. MUNN: Working draft and drafts that have the date 11/5/2007 on them. 18 19 DR. ZIEMER: Eleven-five. 20 MS. MUNN: The date that's on the --21 DR. ZIEMER: Was on the document itself. DR. MAURO: Wanda, right now I'm looking at 22 23 the file that you distributed, the one-liners, 24 and on the bottom as a footer it has a date 25 11/7/2007.

1	DR. ZIEMER: Yeah, that's what mine shows,
2	11/7. I don't see 11/5.
3	MS. MUNN: That's fine.
4	DR. ZIEMER: Does that one include the
5	recommendations from the subgroup then?
6	MS. MUNN: Yes, it does.
7	DR. ZIEMER: I thought it looked very good.
8	I think it will be extremely helpful in
9	tracking issue resolution on all of these, and
10	I'm hopeful that a similar methodology can be
11	used by some of the other groups as they track
12	issues.
13	DR. MAURO: Wanda, this is John. There's
14	one other aspect of the question I raised
15	earlier that I don't think we addressed. That
16	is, for the big document that we're going to
17	be tracking, whether it's the subset which is
18	the active ones or the completed archived one
19	which has everything, do you want us to
20	integrate this first set, second set and third
21	set into one master matrix? Or do you want to
22	keep those separate where they key back to the
23	individual deliverable, three-ring binder
24	deliverable?
25	MS. MUNN: Well, it was my understanding

1	from the subgroup that it is our desire that
2	all of them be incorporated into a single
3	item. That was one of the reasons why we
4	thought the date was so important; as long as
5	we have the date column there it's easy to
6	identify whether that item came from group
7	one, group two or group three.
8	DR. MAURO: Very good. No problem.
9	MS. BEHLING: Wanda, just for one
10	clarification from me. This is Kathy Behling.
11	I assume you're talking about the roll-up
12	table or that summary table; we're going to
13	include all procedures that have been done in
14	that summary table, correct?
15	MS. MUNN: That's correct.
16	DR. MAURO: But what I'm hearing is not only
17	does it apply to the one-liner table, it also
18	applies to the big table.
19	MS. MUNN: Yes, it does. So we want,
20	instead of having little slumps that we can't
21	identify because we think of them in terms of
22	alphanumeric designations and to have to think
23	then whether they are set one, set two or set
24	three is too much of a confusing factor. All
25	of the items on which we're working will go

1 into one table, both the one-liners and the 2 more complex. It will all be one group, all 3 be organized in the alphanumeric order that we 4 originally discussed. The date will identify 5 for us whether it was from the first set, the second set or the third set. 6 7 DR. ZIEMER: Well, in that connection then 8 as I look at the, I guess you'd call it a 9 sample roll up, all of these seem to have the 10 same dates. What's an example of --11 MS. BEHLING: This is Kathy Behling, and I 12 can answer that question. The reason these 13 all have the same date is because these were 14 all associated with the second set of 15 procedures that we submitted to the Board. 16 That's why --17 DR. ZIEMER: The full table would have a 18 whole other group which would have the earlier 19 date, and then there would be yet another 20 group? 21 MS. BEHLING: That's correct. 22 DR. ZIEMER: For example, then, what you're 23 saying, let's take OTIB-0017, there would be 24 perhaps some earlier OTIB-0017 findings, and 25 then these 6/28 findings, and then some later

1	OTIB-0017 findings?
2	MS. BEHLING: Right, that's correct.
3	DR. ZIEMER: Okay, I got you, so they would
4	just be inserted in here.
5	MS. MUNN: Right, that's how the work group
6	perceived it so that we would at all times be
7	working from a list that would give us all of
8	the findings from any given procedure. The
9	date would key us whether they were group one,
10	group two
11	DR. MAURO: And you know what's good about
12	this as you pointed out in, for example, OTIB-
13	0017. If we did go through multiple reviews,
14	let's say the first set and then the second
15	set we reviewed a new version, it would all
16	appear under one-liners
17	DR. ZIEMER: Right.
18	DR. MAURO: and in the major document
19	right adjacent to each other. Yeah, that's
20	good.
21	MS. BEHLING: This is Kathy Behling. The
22	only thing that I want to make mention of here
23	is if we, I wasn't convinced, I wasn't sure
24	that we were going to go back to the first set
25	of procedures that we reviewed and take that

matrix and convert it into this format. And that's fine. I just want to caution everyone that that's going to take quite a bit of effort just because in order to capture what happened in each of the working group meetings, I assume it will mean going back to transcripts, and it will require some effort.

MS. MUNN: I don't think it was the intent of the subgroup that we go to that extensive effort, Kathy. I think it was the intent to simply transfer, to see that those items were placed on the roll up, but as far as the individual pages were concerned, that only information that is on the existing matrix be transferred.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

**MS. BEHLING:** Okay, I misunderstood that. That's fine, okay, thank you.

18 DR. MAURO: Kathy, what I put together, my 19 first draft of the big matrix for the second 20 set, I had that problem. That is, we did have 21 three working group meetings, and the 22 particular package that I put together for 23 consideration by the working group only picked up from the October 2<sup>nd</sup>, the previous two are 24 25 not actually captured. In other words we

don't have any material that goes for the two earlier ones.

1

2

3

4

5

6

7

8

9

10

11

12

24

25

So what I did is simply say, listen, we're starting this with the October 2<sup>nd</sup> working group, and I put a little asterisk next to it saying, listen, keep in mind that the information you're looking here has been captured that was discussed previously, but we didn't break it out by date. Because I didn't go back to the transcripts for the two earlier working group meetings because that would have been a heroic effort.

13 So I think that maybe the way we can 14 make sure we, when we do this integrated, 15 combined package including the first set, I 16 think we just capture the where it is but not 17 try to resurrect and reconstruct the history 18 according by date of working group. We may 19 want to indicate that there were three or four 20 working group meetings or whatever to get us 21 to the point that we reached. 22 But to try to flesh out what happened 23 in each working group meeting, that would be

> quite an effort. And I don't know whether it would really add that much value at this point

1 in the process. 2 DR. ZIEMER: So I think we use this going 3 forward. 4 DR. MAURO: Going forward, exactly, yes. 5 MS. BEHLING: Okay, very good, thank you for the clarification. 6 7 DR. ZIEMER: I mean, what's already been 8 done and particularly items closed, we don't 9 have to go back and reconstruct all that at 10 this point. 11 MS. MUNN: No, they'll be on the roll up. 12 DR. ZIEMER: The purpose of the document is 13 really to help us in the resolution process, 14 and going back and reconstructing stuff that 15 occurred a year or two or three ago, it won't 16 help us any I don't think. 17 MS. MUNN: I agree, and it was not the 18 intent of the subgroup anyway for that 19 extensive archive of what transpired during 20 that step forward. 21 We're clear where we're going. Do we 22 have any idea how long it might take us to 23 have that matrix in hand? That's the only 24 reason I'm really concerned about that because 25 I have an eye to our next scheduled meeting

1	which is a face-to-face meeting in Cincinnati
2	on December the 11 <sup>th</sup> , and we're hopeful that a
3	new matrix format might be available for us
4	before that time.
5	MS. BEHLING: This is Kathy. I'll make an
6	attempt to put the entire matrix together by
7	December 11 <sup>th</sup> .
8	MS. MUNN: Good, it would be very helpful if
9	we had, if we could begin to work from that
10	new matrix.
11	MS. BEHLING: Okay, very good.
12	MS. MUNN: If it's impossible, let us know,
13	but otherwise it would be great if we could
14	have that.
15	MS. BEHLING: Okay, I will do that.
16	MS. MUNN: Any other comments with regard to
17	the new matrix format?
18	DR. MAURO: Wanda, by way of clarification
19	to make sure that we're looking at this the
20	same way, I have in front of me the first page
21	of what's called Sample Number One where we,
22	this is the sample of the new product that we
23	will be putting out. I just want to make sure
24	that we're, in terms of, we understand what
25	the format is and the content is, but there's

1 also a process issue, and I want to make sure 2 that everyone is on board, especially NIOSH 3 sees it the same way we do. 4 When you look at this format, you'll 5 notice that there's a, for example, a category 6 underneath working group meeting. Like right 7 now if you folks have it in front of you, 8 you'll see a date called 11/7/2007, and that's 9 today. And we're having a working group 10 meeting. And you'll notice underneath that 11 there is two columns, one called NIOSH/SC&A discussion and one called Work Group 12 Directives. 13 14 Now I want to make sure we all see 15 this the same way. What I see this as is that 16 this conversation that we're having right now 17 somehow is going to be captured in that box. 18 After this meeting is over someone, certainly 19 we'll be willing to participate in any way and 20 support any way you like, will need to fill in 21 we had this working group meeting today, 22 11/7/2007, and right underneath that work 23 group meeting you'll see NIOSH/SC&A 24 Discussion. Some words need to be put in 25 there that says, well, what is it that we

1	talked about today and the exchange.
2	And to the right of that you see
3	another box that says Work Group Directives.
4	And I would say that underneath that would be
5	what direction the working group gave either
6	NIOSH or SC&A. For example, just this, what I
7	just heard was SC&A received a directive to go
8	forward with the preparation of this matrix
9	for all three sets of cases and deliver a work
10	product to the working group by the December
11	11 <sup>th</sup> .
12	And so I envision that that would go
13	in underneath that category. So I just want
14	to make sure we all see it the same way. That
15	was my interpretation functionally how this
16	would work. And that would occur within a
17	matter of a day or two after this meeting.
18	That is, someone, and myself or Kathy or
19	someone from the I'm not quite sure how
20	you'd like to do it. But that will need to be
21	done.
22	Then you'll notice that the next row
23	down there's something called SC&A Follow-Up
24	Action. Now that, this again, is a point of
25	process clarification. Let's say we were

1 talking about a particular OTIB in this case. 2 Let's say we're talking about OTIB-0017, and 3 one of the items was that after the meeting, 4 after today's meeting, SC&A gets some 5 directive that would be in the box called Work 6 Group Directives, to do some analysis. Or 7 NIOSH is given some directive to do some 8 analysis. And that analysis has been done. 9 Now my understanding is that prior to 10 the next working group meeting, SC&A would 11 fill in the box called SC&A Follow-Up Action, 12 and we'd fill that information in which would 13 be done between now and the next working group 14 meeting, and we'd fill it in. Similarly, NIOSH would fill in the information called 15 16 NIOSH Follow-Up Action and fill in their 17 material so that then we would have our 18 working group meeting and then continue the 19 process. 20 This is how I'm viewing the mechanics 21 of implementing this table. Does everyone see 22 it the same way? 23 **MS. MUNN:** The process is a major one. It's 24 the only part of what we're doing that has 25 bothered me a little bit personally. The

question arises who owns the document. Who has access to the document in terms of what goes on it?

4 Well, this is Ziemer. Wanda, I DR. ZIEMER: 5 think you're, the Chair's got to be the 6 controller so that you would, I mean, you 7 could ask SC&A to draft something, but it 8 seems to me, for example, whatever the work 9 group directive is you would have to agree 10 that that's what we agreed to, and that would 11 go in that column. Take, for example, the OTIB-0006 which NIOSH, I think at our last 12 13 meeting there was perhaps a directive or at 14 least NIOSH agreed to make some modifications and Stu now has provided us with the modified 15 16 -0006 and -0007 and, I think, -0008. 17 Right, Stu? 18 (no audible response) 19 DR. ZIEMER: And there perhaps would have 20 been a directive there, NIOSH will modify 21 those in accordance with the discussion. And 22

1

2

3

23

24

25

the follow up is NIOSH has done this on a certain date and distributed the drafts to the committee or something like that. But it seems to me whatever goes in there you might

1 ask the contractor to fill that in and then 2 bounce it off of you and make sure that it 3 agrees with your understanding from what we 4 agreed to at the meeting. Someone's got to be 5 the point person on it. It seems to me the 6 Chair has got to be kind of the point person 7 on resolution just like Mark is on the Dose 8 Reconstruction Review. 9 MS. MUNN: You're probably correct, with 10 much hesitation, but --11 DR. ZIEMER: Well, for example, I think it's our document, it's the Board's or the 12 13 subcommittee's document to assure that the 14 resolution process goes forward, so it's our 15 tool. 16 MS. MUNN: There's no question about that. 17 The question is whether --18 DR. ZIEMER: And again, if the wrong words 19 are in, or if we think NIOSH agreed to 20 something, and they think they agreed to 21 something else or likewise with SC&A, we have 22 to make sure we get the right words. So there 23 would have to be a kind of preliminary 24 completion of those boxes. Maybe at the 25 meeting itself we could agree as to what goes

1	in there.
2	MS. MUNN: Well, at the meeting itself
3	DR. ZIEMER: The work group meeting.
4	MS. MUNN: that the
5	DR. ZIEMER: On each item or each issue.
6	MS. MUNN: I suppose we could make an
7	effort to word that
8	DR. ZIEMER: I mean, for example, you have
9	action items from the Naperville meeting.
10	Basically, all of those are what you might
11	call the work group directives that's going in
12	those boxes John described, I think.
13	DR. MAURO: Yes.
14	MS. MUNN: That's true.
15	DR. MAURO: That's what I had in mind that
16	this would have the directives. And
17	DR. ZIEMER: Basically those are the action
18	items.
19	DR. MAURO: Right.
20	<b>DR. ZIEMER:</b> I mean, we're already doing it.
21	They would just show up in the appropriate box
22	for each item. For example, here I see an
23	action item that says NIOSH will reword OTIB-
24	0019 to better reflect actual procedures.
25	That would be in essence I think the

2

3

4

5

6

7

8

9

10

11

12

21

22

23

24

25

directive.

MS. MUNN: You're right.

DR. ZIEMER: And I don't think, you know, the word directive sounds like we're, you know, do it whether you want to or not, but as we all know as we go through this process, generally we're reaching a kind of agreement state where the Board says, yes, this is what we think should be done. And NIOSH and SC&A agree that that's the direction that should go on an item. So it's a mutual agreement in most cases at least.

13 MS. MUNN: I think you're probably correct. 14 The concept of wording that needs to go there 15 we're still discussing it, is a good one from 16 my point of view because not only does it 17 relieve me of the responsibility of wording it or of anyone else wording it. It also assures 18 19 that it is going to go on the action item 20 which I like.

DR. ZIEMER: Well, I think if we assume that our action items are in essence what the Board directive or work group directives are and once those are in place and NIOSH and SC&A indicate how they will respond or what their

1	status is like revising language or providing
2	a draft of something or preparing some kind of
3	matrix or whatever it is.
4	DR. MAURO: Paul, would you prefer us
5	replacing the words Work Group Directives with
6	Work Group Action Items?
7	MS. MUNN: No, directives is fine because
8	sometimes it's not an action item.
9	DR. ZIEMER: I think essentially we're, it
10	is a kind of directive in the sense that the
11	contractor is being tasked. We can't task
12	NIOSH, but we can task the contractor.
13	MS. MUNN: I think the wording is probably
14	fine, John.
15	DR. MAURO: Okay.
16	MS. MUNN: It's the process that we're going
17	to have to hash into shape here.
18	DR. MAURO: I had one related question
19	regarding the box underneath where it says
20	SC&A Follow Up. Now, very often, not very
21	often, but sometimes the follow-up activity
22	either by NIOSH or SC&A is a white paper which
23	could be lengthy, could be four, five, six
24	pages which goes into some depth on the issue.
25	
25	My guess is that if the material that would go

1	in the box would be perhaps a white paper was
2	issued dated so-and-so, and so that it would
3	very briefly summarize the outcome of that
4	investigation. So there needs to be a link,
5	at least something said
6	DR. ZIEMER: You wouldn't put the white
7	paper itself in there, but you
8	DR. MAURO: Exactly, exactly, because
9	otherwise it would be too lengthy.
10	DR. ZIEMER: Yeah, yeah.
11	MS. MUNN: Might I suggest that we consider
12	the paper itself go into the archive?
13	DR. ZIEMER: As an attachment.
14	MS. MUNN: An attachment to the archive.
15	DR. WADE: Makes sense. Wanda, this is Lew.
16	I'm going to have to leave you now, so I wish
17	you good luck. But if you need me, you can
18	always find me.
19	MS. MUNN: Thank you, Lew, and is Chia-Chia
20	stepping into your shoes?
21	DR. WADE: She is indeed.
22	MS. MUNN: Chia-Chia, may I ask the same
23	thing I've asked of Lew in the past that you
24	assist me in keeping track of the action
25	items?

1	MS. CHANG: I certainly can.
2	MS. MUNN: On this call, so that you and I
3	can compare notes afterwards and make sure
4	we're not missing anything.
5	MS. CHANG: Good idea.
6	MS. MUNN: Ask you to review what you have
7	at the end of this call.
8	All right, thank you, Lew.
9	DR. WADE: Bye-bye.
10	DR. MAURO: If I may, Wanda, bring up one
11	more item. When I originally worked on the
12	first crude draft of the big table, one of the
13	things that was essential for me to be able to
14	do that was to go back to the minutes, not
15	minutes, the transcript of the October, I
16	think it was the third working group meeting.
17	And Ray was kind enough to forward to me the
18	crude, you know, pre-processed transcript
19	which is extremely important to me. In other
20	words I was able to revisit everything so that
21	when I fleshed out the discussion section, the
22	action item section, et cetera, in the
23	material that I provided, I was able to be
24	faithful to what was said at the meeting as
25	opposed to relying solely on my scribble in my

1	notebook that I take during these meetings.
2	And I guess I asked a question to Ray
3	and everyone on the working group is to what
4	degree do you think it would be of value to
5	have available this material relatively
6	shortly after the meeting to make sure that we
7	flesh out this document in a faithful way to
8	the minutes, to the actual transcript of the
9	meeting? Is that something that Ray, I guess,
10	and everyone aboard, do you think that's
11	something that can be done or should be done?
12	MS. MUNN: This is what I indicated to you
13	by e-mail that I wanted to discuss with you,
14	and it's something I suppose that we can put
15	on the table here if we wish it. There are
16	some concerns here. It doesn't have to do
17	necessarily with our Procedures group so much
18	as it does with other working groups.
19	DR. ZIEMER: Actually, we've been relying on
20	the designated federal official to help
21	establish priorities because we have multiple
22	work groups and Ray will have a little
23	difficulty if every chairman comes to him and
24	wants theirs right now. So there has to be
25	some priority, you know, what's first in the

queue. We can't ask Ray to determine that for himself.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

Each work group chairman probably thinks their stuff's the most important. But I think we're still going to have to rely on the designated federal official to serve as a sort of our clearing house for establishing priorities. And we probably couldn't always guarantee that this set of Procedures would be the one that would come out like right away.

I think it's going to depend on what else is going on. What's urgent in terms of main minutes, and you know, we have members of the public from different sites clamoring for minutes as well. So you have all of those issues that have to be taken into consideration.

18 I think every effort's going to be 19 made to try to get these transcripts out as 20 quickly as possible, but I don't think, I'm 21 not sure we can always guarantee that, for 22 example, for this work group that we're going 23 to have them out in whatever timeframe we 24 think we need. 25 MS. MUNN: Probably what we can say is we'll do the best we can, John. **DR. MAURO:** Okay.

DR. ZIEMER: John, you may be asking, well, once they're out there's an additional delay and that's the redaction time. And you may be asking for can you get the minutes unredacted?
DR. MAURO: That's what Ray kind enough sent to me very shortly after the meeting. It was, you could see that it was still in a rough form, and then I just used it for my purposes and then destroyed it.
DR. ZIEMER: I think legally, and Liz or Emily can tell me, but I think the contractor can have unredacted minutes or transcripts. Isn't that correct?

MS. HOMOKI-TITUS: Yeah, federal employees and the contractor on a need-to-know basis can have an unredacted transcript.

19DR. ZIEMER: Right, but the issue is still20going to be that of when they can actually be21made available, to try to get them as soon as22we can. I don't know what else we can do at23that point, John.

**DR. MAURO:** That's fine. We've been working with the minutes that I write down and

1 certainly interfacing with the various other 2 folks involved in the meeting to make sure we 3 capture correctly our marching orders. That's 4 fine. 5 Then if we have agreed to DR. ZIEMER: 6 action items that should help also. 7 MS. BEHLING: Wanda, if I can just step back 8 a second and be sure that I understand the 9 process as we've discussed it so far and 10 correct me if I'm wrong. I assume that after 11 working group meeting like today's meeting, 12 possibly somebody like myself will sit down 13 and attempt to, to the best of my knowledge 14 and my notes here, fill in the NIOSH/SC&A 15 discussion box associated with today's 16 meeting. 17 During the meeting we will attempt to 18 fill in the work group directives as we go 19 through each of these procedures. Thereafter, 20 I can send that to you and so you can give it 21 your blessing. And at that point maybe we can 22 send a copy to NIOSH, and we can have a copy. 23 And then what I envision thereafter is 24 for the follow-up actions, and this is 25 typically what I do for the Dose

Reconstruction reviews, is once I have completed all follow-up actions for everything that we discussed during our working group meeting, I take this matrix one time, try to fill in everything that I can at that one time, send it to you and NIOSH. And I believe Stu tries to do the same thing. He really only handles the matrix maybe one time, fills in all of his action items, and then it will go back to you. And at that point we would have a matrix that would be prepared and ready for the next work group meeting which you would send out. That process sounds reasonable to MS. MUNN: me, Kathy. If it does to the other work group members, that's fine. What I will try to incorporate into my personal process is during the work group as we identify action items, I will try to review them before we get to the end of our call in such a way that you can capture the words. I would anticipate, I think the working group would anticipate being

24

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

25

^.

MS. BEHLING: Okay, very good. DR. ZIEMER: I agree. That sounds like a

good way to proceed.

1 2 MS. MUNN: For instance, right now even 3 though we do not have an open matrix item 4 before us, the action item that I have for the 5 discussion that we've just had is simply SC&A 6 will keep tracking matrix in a new format by December 11<sup>th</sup>, '07. That would be if we have a 7 8 matrix on which that goes. That would be the 9 type of thing that would go into the 10 directives box. 11 DR. ZIEMER: And we can have action items 12 that are outside of the matrix itself. 13 MS. MUNN: Yes, we will. 14 DR. ZIEMER: I mean, this is a broader 15 action item. 16 MS. MUNN: Inevitably we'll do that. 17 DR. MAURO: I was just thinking that, Paul, 18 mainly right now the way we have formatted 19 both the one-liners and the full matrix really 20 only addresses individual findings related to 21 individual procedures. We are actually right 22 now having what I would call an overarching 23 discussion that has across the board 24 applicability to everything we do. And, of 25 course, the matrix is not designed to capture

this so right now we do not have a vehicle to capture the conversation we're having right now.

**MS. MUNN:** Do we have, we're still sort of out there with respect to what we started all calling overarching issues as well.

1

2

3

4

5

6

17

18

19

20

21

22

23

24

25

7 DR. ZIEMER: Well, and in fact, we can think 8 about this, and I don't know that, Wanda, 9 we've got to solve it today, but we may want 10 to have for the work group a kind of action 11 item list where we track action items and 12 their closure outside the matrix. These kind 13 of overarching things, I'm not sure what we'd 14 even call it, but maybe just general action 15 items of the work group or something like 16 that, you know.

MS. MUNN: Well, roll up or a subgroup had discussed a column that has status in the work group process. Under transfers there's always the possibility that we can say transfer to whatever. By that means we can keep track of what has gone to global issues and what has gone to another.

MS. BEHLING: As a matter of fact -- and I don't want to deviate from the discussion that

1 you're currently having -- but when we get a 2 moment that is one area that I wanted to talk 3 about before we leave the matrix discussion. 4 And that is I've made some changes and these 5 were my own thoughts about what needs to go 6 into the status of the work group process. 7 And I wanted to discuss those terms 8 with you so that we can be consistent and that 9 we're all in agreement. I'm not sure, I don't 10 want to interrupt the discussion you're 11 currently having though because I believe this 12 overarching issues discussion may be something 13 a little different than the status. 14 DR. ZIEMER: And maybe something that would 15 apply to all work groups. 16 MS. MUNN: It certainly does, but it flows 17 into our matrix specifically and very strongly 18 because if we're going to be a hallmark of 19 tracking the progress, then we have to be very 20 ^ as possible without killing anybody in the 21 process. 22 If you'd like I can take a few MS. BEHLING: 23 minutes and just walk you through the wording 24 that I've put into these five sample matrices, 25 and we can come to maybe some agreement as to

1	whether these are good words for you or not if
2	that's appropriate at this time.
3	MS. MUNN: Kathy, feel free to discuss at
4	this time unless someone has other feelings.
5	DR. MAURO: This is John. I do, I might now
6	could use a little clarification. Right now
7	the conversation we're having including the
8	action items and the general discussion and
9	judgments that are being made regarding these
10	overarching issues, I don't see any place
11	where that could be captured in the format and
12	content of the current matrix.
13	DR. ZIEMER: No, no, that's why we're
14	DR. MAURO: Okay, I just wanted to make sure
15	
16	DR. ZIEMER: talking about maybe there
17	should be a separate tracking of overarching
18	issues or something.
19	MS. MUNN: It's been established that
20	anywhere so far as I know in the Board's
21	activity. So as far as what we're looking at
22	here for the PST that we do focus on that, and
23	this is probably the ideal time to do it. Why
24	don't you go on, Kathy?
25	MS. BEHLING: Okay. If you look at Sample

1 One, this is, I just selected the OTIB-0023 2 and the fact that we are currently, we started 3 discussing this on the matrix, and we're 4 currently in the process of attempting to 5 resolve this particular finding. So in the 6 Status box on the very first line all the way 7 to the right I put, open-in progress because 8 during our smaller group meeting, Wanda -- and I think correctly so -- indicated we want to 9 10 be able to determine what is open. 11 And if it just says open in this box, 12 that would mean to me that we have not begun 13 discussions on it. However, when it says 14 open-in progress, then obviously we have 15 started discussions. So that's why I made 16 these various different samples. So in other 17 words open itself would indicate that it is a 18 finding we ultimately are going to have to 19 discuss, but we haven't had any discussion on 20 that finding yet. And open-in progress means 21 that we've started some discussions just so we 22 can make a differentiation in the roll up. 23 If we go on to Sample Two, this is a 24 case where a lot of times, especially with the 25 second set -- in fact, John and I talked about

1 this before the meeting today -- we had 2 someone with SC&A put together the matrix for 3 And this person was very thorough and us. 4 identified every little item that was 5 discussed in the discussion of the particular 6 OTIB or procedures. However, as we started to 7 resolve these issues we realized that 8 potentially if we resolve item one, that also 9 resolves item two and item three. 10 So this second issue is indicating 11 that we're in discussion on this issue, but 12 it's going to be resolved under a previous 13 item such as in this case it's going to be 14 addressed under Finding OTIB-0017-03. 15 Initially, John had marked this as transferred 16 which I felt it means it leaves the system 17 here, and I didn't necessarily want to use 18 that word in this circumstance. 19 And then in Sample Three, this gives 20 you the case where you're actually going to 21 transfer this finding because this OTIB or 22 this TIB-0009 finding that we've identified is 23 one of these global issues. And so I want to indicate here that this is being transferred 24 25 to our global issues findings. It could also

1 be, another transfer in my mind would be if we 2 come across a finding that really needs to be 3 addressed under our Task One or site profile 4 review because it's specific to a specific 5 site profile. That's where this would be 6 indicated as a transfer and then in 7 parentheses we would say transferred to site 8 profile review Task One. 9 And then Sample Three, here again, and this is one that I'm still unsure about how to 10 11 handle this because this is, again, one of 12 those items I don't want to fall through the 13 cracks. This is an example of a case where we 14 had a finding, and NIOSH agreed with our 15 finding, and the resolution to that finding is 16 they're going to revise their procedure. And 17 so it's closed according to what we're doing 18 here, but somewhere down the road we have to 19 ensure that we do, after the revision comes 20 out, that we do go back to this item. Now I marked it as closed-revised 21 22 procedure just so that when we look down 23 through the roll-up table it's going to be 24 something when we see revised procedure that 25 we have to keep in mind still is somewhat of

an open item. And maybe I should not have called it closed here. And so we can have a discussion on that and you can correct my words if you desire.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

DR. ZIEMER: Maybe another terminology for those kind of cases is needed. I don't have the words at my fingertips but we might give some thought to how we might designate it in a manner that suggests that it's not really closed but is being handled in a different manner.

MS. BEHLING: Yeah, we may want to come up with better words there, absolutely. But I guess what the goal was is I wanted to be able to, once we look at our roll-up table, our one-liners, you can go down that status column and easily be able to identify this is an item that still needs to be addressed in a revision to a procedure or in something else. And I don't know if it would be a transfer. I'm not sure. I didn't necessarily show it as transferred, but I'll let someone else make that decision. And then finally, Sample Five, this is actually a case where I put an example in

1 where SC&A agrees with NIOSH's response. 2 There is no further action that's required. 3 And so the status of this finding is closed. 4 No further action will be necessary. 5 And so I just wanted to engage the 6 Board in some discussion as to what words you 7 would like to see in there so that we can 8 maintain some consistency as I said so when we 9 look down this roll-up table, it's going to be 10 very easy for us to see where we are in the 11 process and what needs to be picked up in the 12 future for other revisions of procedures. MS. MUNN: Kathy, I think my personal 13 14 reaction is that all of the terminology is 15 fine with the exception of Sample Four. 16 MS. BEHLING: Okay, I agree. 17 Does anyone have any suggestions as to 18 what would be more appropriate? 19 MS. MUNN: My suggestion would be in 20 abeyance. We ^ in abeyance. That should be a 21 signal to us that it's closed as far as we're concerned, but something is still hanging on. 22 23 And not until that something that's hanging on 24 is done do we write closed. 25 MS. BEHLING: Very good, I agree.

1 MS. MUNN: That way we don't lose it. 2 DR. ZIEMER: And actually, and that's fine, 3 and some words you may have to spell out at 4 the front end of the document what, or as a 5 footnote for that column, what the different words mean, in abeyance means this. 6 7 MS. BEHLING: Could we do in abeyance-dash-8 revised procedure or whatever the action might 9 be, and just a very short note to indicate 10 what --11 DR. ZIEMER: Type of abeyance it is. 12 MS. MUNN: Absolutely, yes. 13 MS. BEHLING: Okay. I think that resolves 14 the status. 15 MS. MUNN: My only concern still continues 16 to be how we're going to deal with global 17 issues. That is something that in my view is currently in NIOSH. I'm not sure how the 18 19 agency has figured that they're going to deal 20 with these things. 21 DR. ZIEMER: Well, the first step, of 22 course, is identifying which ones those are, 23 and I think we're at that point. So then it's 24 a matter of not letting them fall through the 25 cracks.

1 MS. MUNN: Right, so Kathy, are you happy 2 with where we are? 3 MS. BEHLING: Yes, I'm fine. I appreciate 4 everyone's input. This resolves some of my 5 questions. 6 If no one has any objections I MS. MUNN: 7 might ask Stu and Larry where NIOSH is with 8 respect to identification of and what's the 9 tracking process for those global issues that 10 we've already identified. 11 MR. HINNEFELD: Well, this is Stu. What I 12 can offer is Jim Neton has kind of been 13 keeping track of them, but I don't feel really 14 qualified to comment on them here on the phone call. 15 16 MS. MUNN: Could we ask as one of our action items for December 11<sup>th</sup>, that we have some 17 18 feedback with respect to such status of the 19 tracking mechanism is intended to be? 20 MR. HINNEFELD: Okay. 21 MS. MUNN: This work group probably has some 22 responsibility there, but we haven't had the 23 discussion clarifying where the lines of 24 responsibility are and exactly how we're going 25 to do this.

1	MR. HINNEFELD: Okay.
2	MS. MUNN: Then in our face-to-face meeting
3	in December 11 <sup>th</sup> , we'll have information from
4	NIOSH about where we are with the global
5	issues and how the agency perceives this type
6	of tracking should go.
7	DR. MAURO: Wanda, this is John.
8	Mechanistically, when it comes to transfers,
9	whether it's transferred to the global
10	concerns or transferred to a site profile
11	review, what I'm hearing is that once you
12	designate something as transferred, the
13	concern is to make sure that in fact it has
14	been transferred and captured by some other
15	group. And is that what the issue is here?
16	Not that it's resolved. In other
17	words the resolution, you know, what I'm
18	hearing is the real concern is, okay, we can
19	say this is being handled under review of the
20	Nevada Test Site site profile or under some
21	generic science issue. But there's a bit of
22	presumption in that in terms of is it in fact
23	captured by these other groups of individuals
24	working the problem.
25	Is that what you're concerned about?

1 Or are you more concerned that, not that it's 2 captured, but that in fact somehow the 3 resolution of the issue is fed back to us as a 4 working group or to you as a working group? 5 MS. MUNN: That's the concern. Once we say 6 it's transferred, then does it actually leave 7 our purview or do we have the responsibility 8 to follow it through to its end and make 9 certain that it is, in fact, captured? I think that's the concern of the whole Board 10 11 actually. It's not just, it doesn't appear to 12 be just a concern of ours. It's a concern of 13 the Board. 14 Okay, any other issues with respect to 15 matrix and tracking? 16 (no response) 17 ACTION ITEMS 18 MS. MUNN: Okay, let's move on to the action 19 items listed. The first one is a no starter 20 because obviously this is not a full Board 21 meeting. We can move past the report on PERs' 22 status. 23 The next item is OTIBs -0006, -0007 24 and -0008. I believe we all should have that 25 by now.

1 Stu, do you want to address that for 2 us? 3 MR. HINNEFELD: I sent, those documents were all revised. This is from the Set One 4 5 procedure review, these actions from Set One. 6 MS. MUNN: Right. 7 MR. HINNEFELD: And I did look at the 8 documents, the revisions, and the revisions 9 are strictly to incorporate the comments from 10 the working group. So there were no other, 11 another action that appears down here in a little bit, but any other revisions were like 12 13 grammar and spelling. So it was strictly for 14 those comments, so this is not, you know, 15 that's the only change. That was one of the 16 items I was supposed to look at. 17 MS. MUNN: We did all receive that, correct? 18 MR. GRIFFON: Yes. 19 MS. MUNN: Did not receive the... 20 DR. ZIEMER: Do we need to approve those 21 changes? Or what happens next? 22 MS. BEHLING: This is Kathy Behling, and 23 actually I'm jumping ahead a little bit, but 24 the first item under the SC&A action items is 25 that we were supposed to review the modified

1 TIB-0006, -0007 and -0008 if they were 2 considered just documents that were modified 3 due to our previous comments. However, it was 4 decided at the last meeting I believe that if 5 NIOSH would have come back to us and said this 6 is a complete rewrite of that procedure, then 7 we would have awaited you assigning that 8 procedure to SC&A. 9 However, in this particular case since 10 when Stu sent these out he clearly indicated 11 to us that these were just in response to our 12 findings. So I took it upon myself to go back 13 and thoroughly review our findings and the new 14 procedure, the changes that were made to this 15 revision. And, in fact, I was able to clearly 16 indicate, in fact, I'm going to, that will be 17 included on our new matrix in December. 18 I was able to state that on the three, 19 there were three findings associated with TIB-20 0006, two findings associated with TIB-0007, 21 and three findings associated with TIB-0008. 22 And NIOSH did appropriately address all of 23 those findings and did a nice job of updating 24 those procedures to accommodate our initial 25 concerns.

1 MS. MUNN: Well, we are clear on those 2 three. 3 MS. BEHLING: Yes. 4 MS. MUNN: Those can be closed? 5 MS. BEHLING: They will be closed in the 6 next matrix. 7 MS. MUNN: Excellent. DR. MAURO: This is John. I've got a, 8 9 again, this is again mechanistically. So when we issue the December 11<sup>th</sup> version of our 10 11 matrix, the one-liners and the full matrix, 12 we, I guess, would prior to the meeting not 13 only fill in the appropriate material for SC&A 14 and NIOSH would fill in their material, but it 15 would also be an attempt, as we just did just 16 now, to go actually get to the point where we 17 fill in that upper right-hand corner regarding closure. And we would do that all prior to 18 19 the December 11<sup>th</sup> meeting. 20 MS. MUNN: Yes. 21 DR. MAURO: Okay, good, because this makes 22 it very clear --23 DR. ZIEMER: Right, and that's the point at which we would take action then having in 24 25 essence a written recommendation. I mean, we

have the documents. I have laid them side-by-side, well, I think all of them we didn't have the earlier versions there. I guess I'll have to go back and get it, but the other two are laid side-by-side and the actual changes are fairly minimal. They're very specific, and as Kathy described in response to those findings.
MS. BEHLING: That's correct.
DR. ZIEMER: But we will have a formal recommendation in the matrix for the next meeting then is what you're saying.
MS. BEHLING: Yes, I plan to put something in there as probably a SC&A follow-up action item indicating that we did review these

item indicating that we did review these procedures. And we were able to verify that the finding was resolved based on the revisions. And that will be specified in the roll-up matrix and in the individual matrix for that, for each of the, in other words for TIB-0006 as I said there were three findings, and there'll be three separate sheets that identify Finding 01, 02 and 03. What those findings were. How NIOSH responded to those in the revision, and whether we thought that that was an appropriate response. Now I don't

1	know if the Board still needs to approve that
2	or not.
3	MS. MUNN: I don't believe so. I think if
4	both NIOSH and the contractor have agreed that
5	the issue's erased, has been resolved, then
6	they are resolved.
7	DR. MAURO: I guess I assume then, then we
8	pass this by you, Wanda, and then you would
9	issue this new matrix just prior to the
10	December 11 <sup>th</sup> working group meeting.
11	MS. MUNN: Right.
12	DR. MAURO: And that would be, in effect,
13	the working group's position as of that date
14	of that meeting.
15	MS. MUNN: That's correct.
16	DR. MAURO: Very good. This is very clean
17	now. I like this.
18	MS. MUNN: And if there's any concern that
19	remains with other Board members, they can
20	address it at the time we have our Board
21	meeting. They will have access to it.
22	DR. MAURO: Beautiful.
23	MS. MUNN: Excellent.
24	DR. ZIEMER: Could I ask one clarification
25	for OTIB-0008? Maybe Stu can help me. Was

1 there an earlier version of OTIB-0008? 2 MR. HINNEFELD: Yes, an OCAS, it's an OCAS 3 TIB. 4 DR. ZIEMER: Or OCAS TIB-0008. 5 MR. HINNEFELD: There was. I think I can --6 DR. ZIEMER: This is called Revision Zero. 7 MS. BEHLING: Excuse me, this is Kathy. I 8 think what Stu sent to us was both the older 9 revision, the original that we were working 10 from and then the revised document. He had 11 both of them in there, Dr. Ziemer, because the 12 original OCAS TIB-008 was Rev. Zero Zero, and that was published I believe on September 29<sup>th</sup>, 13 14 2003. 15 DR. ZIEMER: Oh, okay. 16 MS. BEHLING: Okay? And so let me look 17 What I printed out -here. 18 DR. ZIEMER: What I got from Stu didn't have 19 an earlier version, and since it said it was 20 Rev. Zero, I wasn't clear whether this was a 21 new --22 MS. BEHLING: Okay. 23 DR. ZIEMER: -- in fact, under the 24 description it says it's the new document to 25 provide guidance and use of ICRP 66, but it

1 does replace a --2 MS. BEHLING: What I'm looking at -- and 3 Stu, correct me -- but what Stu sent is Rev. 4 One, and it indicates that it supercedes Rev. 5 Zero. And the date on this is 10/4/2007. DR. ZIEMER: Maybe I missed --6 7 MS. BEHLING: We can resend that to you. 8 DR. ZIEMER: What I was looking at was 9 actually the earlier version. I guess I 10 didn't see the later one. I'll go back to the 11 e-mail. I only downloaded five things from 12 that e-mail. There must have been a sixth 13 one. 14 MR. HINNEFELD: If you can tell me, if 15 someone can tell me what date I sent that out, 16 I'm looking for it here in my sent e-mail. I 17 could look and see what I had attached to it. MS. MUNN: I think the fifth. 18 19 MR. HINNEFELD: The fifth? 20 DR. ZIEMER: I'm going back in mine, too, 21 and looking to see what I had on that. Ι think it was sent out on the 15<sup>th</sup> of October. 22 MS. BEHLING: Yes, it is the 15<sup>th</sup>. 23 24 DR. ZIEMER: Oh, I found it now. Yeah, 25 there was another one attached, and it got

1 covered up. You had so many attachments you 2 had to actually scroll through them, and I 3 didn't see that. I found it now. It's not a 4 problem. 5 MS. MUNN: Okay, we're all okay on ICRP-66? 6 DR. ZIEMER: Right. 7 MS. MUNN: If that's the case, we can move 8 on from that action item to the next one. 9 There is, as you all know, a great deal of 10 interest with respect to PROC-92. As matter 11 of fact, I had an inquiry from the media on 12 that earlier this week, and I told them that we would only address the status today, try to 13 14 identify where we were, that it's coming along 15 all right, for the responses that were made. 16 I said that sometime this month, but we would 17 not have --18 MR. HINNEFELD: We expect to have our 19 response in the hands of the work group and 20 SC&A probably by early next week. MS. MUNN: 21 That's great, because we will 22 have that fairly high on our ^ in Cincinnati. 23 We look forward to receiving it. 24 Anyone have any other questions? 25 MR. ELLIOTT: This is Larry Elliott. Just

1 wanted to elaborate a little bit on what Stu 2 offered there. We are preparing a detailed 3 written response, and I think this will go out 4 under a cover letter that I will sign. I will 5 address it to you as the Chair, Wanda, of this 6 working group and Dr. Ziemer as Chair of the 7 Board. And you can handle it as you see fit 8 from that, from those perspectives. But we 9 will be providing detailed reaction on that to 10 this review. 11 MS. MUNN: Excellent, I'll look forward to 12 receiving that, Larry. Thank you for the 13 information. 14 Next action item is the word response 15 to OTIB-0019. 16 MR. HINNEFELD: Yeah, we have a statistician 17 working on that so it's taking a little longer 18 than other humans. But we will provide that. 19 Now this kind of brings me to a question from 20 my standpoint for how to submit new 21 information now when we're kind of between the 22 time when we were submitting it on the old 23 matrix and between the time when we have the 24 complete new format matrix because there are a 25 number of pieces of information, not

necessarily 19-1, but it's a 17, three, four and five.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

22

23

24

25

We have some initial responses from the second set of procedures. You know, several of those that never had initial responses. We have several initial responses to provide that are about ready that I didn't send out before this meeting because I just assumed we would work from the matrix we worked from in October. So in what fashion should I submit things like that now? Because I can send them at any time to allow the Board and SC&A time to look at them prior to the December meeting. DR. ZIEMER: Let's see, we don't have the

**DR. ZIEMER:** Let's see, we don't have the new matrix in place yet, right?

MR. HINNEFELD: Correct.

18 MS. MUNN: It would be nice if the 19 information that Stu has on hand and ready to 20 come up were to be included in the new matrix. 21 That would be helpful.

> MS. BEHLING: This is Kathy. Possibly if Stu could send that information to me along with everyone else, I will try to incorporate it, I will make sure it gets incorporated into

1	the new matrix for the December 11 <sup>th</sup> meeting.
2	MR. HINNEFELD: Great.
3	DR. MAURO: This is a lot like OTIB-0006, -
4	0007 and -0008 where we have reviewed it and
5	found favorably and in the next version of the
6	matrix you'll see it closed. So I assume that
7	this might also occur with respect to OTIB-
8	0019 and -0017, three, four and five. Are we
9	in sort of the same mode of operation?
10	MS. MUNN: I believe so.
11	DR. MAURO: Okay, good.
12	MS. BEHLING: And, Stu, if you would just
13	maybe include some specific words that you
14	would like to have put into the matrix so that
15	I don't misinterpret anything.
16	MR. HINNEFELD: Well, I hope to be able to
17	provide it to you on the old matrix so you can
18	just cut and paste, you know, our initial
19	response
20	DR. ZIEMER: That'd be the way to do it.
21	MS. BEHLING: That's great. That's fine.
22	That's great.
23	DR. MAURO: Stu, this is John. Now, will
24	you be issuing a new version of OTIB-0019 and
25	-0017 similar to the way you dealt with the

previous six, seven and eight issue so that when we review it, we're actually reviewing the new document which has been modified to some extent in response to our comments? Or will you be providing us with what you would be considered something more like a white paper which would describe the kinds of changes that are being made as opposed to the actual document with its changes? MR. HINNEFELD: Well, I would think what the, the way we've kind of thought about this for discussion is that we would, actually, we provide an initial response. We talk about in the meeting, and sometimes our initial response is, okay, we see your point. We will

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

24

25

clarify this. And so sometimes we will commit to make a change, and then I guess we'll go into that in abeyance category we talked about a minute ago.

20DR. MAURO: Very good. That was the reason21I asked the question because depending on what22material we receive, the designation would be23either an in abeyance or closed.

**MR. HINNEFELD:** Right, I can provide like a decision point, too, that we will revise a

1	procedure, but far more quickly than I can
2	provide a revised procedure. So I thought I'd
3	probably continue to work kind of in that
4	mode.
5	DR. MAURO: Okay, thank you.
6	MS. MUNN: Anything else on 19?
7	(no response)
8	MS. MUNN: Can we assume that the next item,
9	OTIB-0017, falls in the same category or is
10	there some more information we need to
11	discuss?
12	MR. HINNEFELD: It falls in the same
13	category from my standpoint.
14	MS. MUNN: John? Kathy?
15	DR. MAURO: That's fine. Sounds like the
16	machine is working. The system we set up and
17	the format and the designations, we're
18	actually applying it right now as we speak,
19	and it seems to be working well.
20	MS. MUNN: All right, then we'll assume that
21	that's going to be the case.
22	I notice that on the agenda where we
23	undertake SC&A with the action items, I had
24	indicated that we would take a 15-minute break
25	from 12:30 to 12:45. Well, it's coming up on

1	12:30. It was suggested to me before we made
2	the call that I might consider the fact that
3	some people have not had lunch. So what is
4	the pleasure of this group? Is a 15-minute
5	break at this time doable for you or do you
6	feel like you need a half hour for food?
7	MR. HINNEFELD: Well, speaking for myself,
8	I'd like to have the opportunity to eat lunch.
9	DR. ZIEMER: Can we get a half hour?
10	MS. MUNN: A half hour is not going to be a
11	problem as far as I'm concerned. Shall we
12	take a half hour? Is there an objection to
13	that?
14	(no response)
15	MS. MUNN: If everyone's amenable with that
16	then in lieu of
17	DR. ZIEMER: Do you just dial in again? Do
18	we break and then dial in again? Is that how
19	it works?
20	MS. MUNN: I think it would be appropriate.
21	We might as well break the line now, and we'll
22	get back shortly after one o'clock, as close
23	to one as we can make it.
24	DR. ZIEMER: Sounds good.
25	(Whereupon, a lunch break was taken from

1	12:30 p.m. until 1:00 p.m.)
2	MS. MUNN: John, are you there with us?
3	MS. BEHLING: Some of the initial items
4	until John gets back.
5	MS. MUNN: Actually, I think we've addressed
6	most of them down through the first batch.
7	MS. BEHLING: I think so.
8	MS. MUNN: Do that until John comes back on.
9	MS. BEHLING: Okay.
10	MS. MUNN: Ray, are you ready?
11	COURT REPORTER: Yes, we're on.
12	MS. MUNN: We are officially back in
13	session, picking up the action items at the
14	point where it says SC&A. The first item
15	being reviewed modified OTIB-0008, -0006 and -
16	0007 which I believe we've covered thoroughly.
17	MS. BEHLING: Yes, I believe so. I hope.
18	MS. MUNN: Are there any outstanding items
19	in that regard or can we mark that off as
20	complete?
21	MS. BEHLING: From my perspective it's
22	complete.
23	MS. MUNN: Move on to the next one. I
24	believe we've thoroughly covered that one,
25	too, with respect to the format. I believe

1 we're all on pretty close to the same page as 2 to what we're going to expect to see on the 3 11<sup>th</sup>. And I think Kathy has committed herself 4 to do yeoman's work here. Is there any 5 additional comment with respect to the matrix that we expect to see on December 11<sup>th</sup>? 6 7 MS. BEHLING: I have no additional 8 questions. I assume you're asking the Board. 9 MS. MUNN: Yes, I am. 10 DR. ZIEMER: I don't know of anything else 11 there. 12 MS. MUNN: All right, then let's move on 13 down to Procedure 0090. 14 MS. BEHLING: This is an item that Arjun was 15 intending to address. Now I know that John 16 spoke with Arjun earlier today, and he was not 17 in a position to participate in this 18 conference call. And, in fact, I was 19 anticipating an e-mail from him yet this 20 morning to discuss this item. However, I 21 haven't gotten anything from him yet. And so 22 I'm afraid that this is going to have to be an 23 open item because we haven't heard back from 24 Arjun yet. 25 I did have a message from Arjun MS. MUNN:

1 to John. He copied me. 2 MS. BEHLING: Okay, great. 3 MS. MUNN: He said he had reviewed -- I'll 4 read it for those who haven't heard it. 5 "John, per our conversation on the task list 6 below, I have reviewed your 0090, and it's 7 essentially the same as Procedure 0004, 0005 8 and 0017, the point of view that the comments 9 that SC&A made on the CATI procedure. 10 Therefore, Procedure 0900 (sic) can be used to 11 track SC&A comments and NIOSH responses." I 12 think that's a typo on that procedure number. 13 I'm sure he meant --14 **DR. ZIEMER:** 0090. 15 MS. MUNN: "It may be useful to revise the 16 matrix with the new section numbers in order 17 to track this, but I have not done that." So 18 that's his response at this juncture. I guess 19 until Arjun is on the call, until he makes any suggestion with respect to revising the matrix 20 21 with new section numbers --22 MS. BEHLING: And I can discuss that with 23 Arjun so that when the new matrix comes out, 24 hopefully we can incorporate Arjun's comments 25 into that matrix.

1 DR. MAURO: Wanda, this is John Mauro. I'm 2 sorry. I was on the other line, and I got 3 caught up in a conference call, so I'm a few 4 minutes late, but I'm back. 5 MS. MUNN: Welcome back. We just dumped on 6 Kathy while you were gone. We have gone down 7 your list very quickly and determined that we 8 covered virtually everything down through -- I 9 was just reading aloud for the record Arjun's 10 e-mail this morning on Procedure 0090. 11 DR. MAURO: Yes. 12 MS. MUNN: I don't think there's more that 13 we can do. 14 DR. MAURO: Yeah, I spoke to him this 15 morning. 16 MS. MUNN: They've been incorporated in the 17 matrix. DR. MAURO: Exactly right. When I spoke to 18 19 him this morning he said that 90 did, in fact, roll up everything, but the issues are still 20 21 there. In other words we can now zero in on 22 0090 as the document that becomes the place 23 where we address the issues. But the issues 24 that were originally identified in four, five 25 and 17 are, in fact, still alive and well.

1	It's just that now we will be tracking them
2	under PROC-0090.
3	MS. MUNN: Right.
4	DR. MAURO: Yeah, that was what he
5	communicated to me this morning. He's out of
6	town this week.
7	MS. MUNN: That will go in our action item
8	in that form.
9	And the next one is the working matrix
10	of the findings on Procedure 0092 of which you
11	provided to us a couple of weeks ago, and I
12	have that in here. And I trust all of the
13	work group members have that. The next stop,
14	of course, will be NIOSH responses. I think
15	we've already covered that as well.
16	Stu, you indicated that would be
17	forthcoming shortly, right?
18	MR. HINNEFELD: I was muted, sorry. I
19	believe by early next week.
20	MS. MUNN: That's fine. So we've already
21	discussed that. There's nothing further to
22	comment through that item.
23	Does OTIB-0012 work up for us to
24	consider in addition to the matrix? We've
25	just received that. Don't know whether anyone

n one. u or l
u or
or
1
are
OSH
ld
in.
I'm
the
1

there then be sort of a matrix prepared or is there a single finding? I mean, the nut of the findings be captured and put in this -0012 then so ^?

DR. ANIGSTEIN: This is Bob Anigstein. I'm the lead in preparing this white paper which went out yesterday, and essentially we did a second review. The initial review of TIB ^ since the TIB-0012 held the statistics we had it reviewed by our inhouse statistician, Dr. Harry Chmelynski. But that review did not address the OSHA construction or physics aspects of it. So in the process of preparing for an earlier working group meeting, we looked at it again.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

I looked at that one, and some issues that had previously not been captured came to the forefront, and that's what the white paper is about. That we don't quarrel with the mathematics of the statistics, but we do have an argument about the assumptions, about the distribution, and primarily, it goes not so much, TIB-0012 utilizes the OCAS-01 Procedure, Appendix B. And we have a concern about the triangular distribution of the dose conversion

factors and the way they utilize and the way they're utilized in the procedures of TIB-0012.

MR. HINNEFELD: Well, I mean, we can treat it as -- I think I've got the nut of the paper. I read it, and I think I kind of understand the gist of it. I mean, we can treat that as a finding in a matrix. Or if there are other things, I mean, other findings you feel like there are multiple things that should be addressed, then I guess I would hope to get a little more clarity about what the multiple things are.

1

2

3

4

5

6

7

8

9

10

11

12

13

14I mean the one thing that seems to be15addressed is that the existing approach16essentially assumes a uniform photon17distribution over the energy range. Is that18right?

19DR. ANIGSTEIN: No, it doesn't actually.20The point is the existing approach treats the21various dose conversion factors for different22energies. Let's say, the example was 30 to23250 keV of photon energy range as if these24were like independent data points, and, in25fact, they're not. Not only that, but this is

1	from ICRP-74, they're not evenly spaced. The
2	lower energies are more closely spaced ^
3	arithmetic approaches, and as you get to
4	higher energies the spacing is wider and
5	wider.
6	And so the approach used by assigning
7	the mode to the middle one of the, I believe
8	there were seven that fell into this range, is
9	not claimant favorable, and it's not
10	scientifically justified. So there were two
11	suggestions made, and one is if it was a stop
12	gap measure it would probably suffice to
13	simply put the maximum $^{ }$ .
14	But in the case of the colon the
15	maximum dose conversion factor I think was
16	something like 150 keV. It was not the
17	highest. In other words it peaks and then it
18	goes down again with energy. So that would be
19	one way. And that's inarguable. It can't be
20	any more claimant favorable than that.
21	And then the next was a suggestion to
22	replace the Appendix B distribution with doing
23	MCNP calculations for each organ. It doesn't
24	have to be for each dose, dose reconstruction.
25	Replace that with a set of generic tables of

1say a generic exposure scenario like you2already have in the very difficult TIB-00043where there's a generic exposure to a slab of4uranium and to use AWEs.5And something along that line so that6for a given worker you say, okay, this is a7typical exposure that this worker had. This8is a typical radiation field which he was in.9And then it will be possible in a single MCNE	
<ul> <li>where there's a generic exposure to a slab of</li> <li>uranium and to use AWES.</li> <li>And something along that line so that</li> <li>for a given worker you say, okay, this is a</li> <li>typical exposure that this worker had. This</li> <li>is a typical radiation field which he was in.</li> </ul>	
4 uranium and to use AWEs. 5 And something along that line so that 6 for a given worker you say, okay, this is a 7 typical exposure that this worker had. This 8 is a typical radiation field which he was in.	
5 And something along that line so that 6 for a given worker you say, okay, this is a 7 typical exposure that this worker had. This 8 is a typical radiation field which he was in.	Ī
6 for a given worker you say, okay, this is a 7 typical exposure that this worker had. This 8 is a typical radiation field which he was in.	
<ul> <li>7 typical exposure that this worker had. This</li> <li>8 is a typical radiation field which he was in.</li> </ul>	1
8 is a typical radiation field which he was in.	
9 And then it will be possible in a single MCNE	
	)
10 run to address all 16 major organs.	
11 MR. HINNEFELD: Well, we'll have to	
12 DR. ANIGSTEIN: I mean, it's a lot of detai	.1
13 probably.	
14 <b>MR. HINNEFELD:</b> look through it and	
15 decide our response.	
16 <b>DR. MAURO:</b> Stu, this is John. By way of	
17 bookkeeping, as you know, we do have a	
18 standing concern with Appendix B dose	
19 conversion factors that you folks are in the	
20 process of revisiting. And that more or less	5
21 had to do with the ISO and GA geometries and	
22 those concerns.	
23 Now what we have here is really	
24 another layer of concern that actually applie	s
25 also to the AP. As you know, historically,	

1	the position was, well, the AP approach, you
2	know, as long as you're working with the AP
3	you're okay and don't use the others. And I
4	think that was generally agreed across the
5	board.
6	What we're saying now is that, well,
7	we also have some concerns with using the
8	current version of the triangular distribution
9	for AP. And now where I'm going with this is
10	that this in theory could become part and
11	parcel as one more aspect of your
12	consideration of Appendix B to OCAS-001, and
13	it could fall into that category. And in
14	those terms I don't know if you would call it
15	transferred, or we could refer to it as this
16	being addressed as part of the particular
17	issue currently being addressed as part of
18	OCAS-001 which goes back to the original first
19	set of reviews.
20	This is really a choice that the
21	working group has. We could either deal with
22	this as a stand-alone issue and incorporate it
23	as a stand-alone issue in the next version of
24	the matrix with these issues identified, and,
25	of course, leaving a blank space for you folks

1	to fill in your response to it. Or we can
2	designate this as something that is being
3	handled under one of the, whatever the
4	appropriate issue is under our review of OCAS
5	IG-001.
6	DR. ANIGSTEIN: John, I'll make a comment.
7	DR. MAURO: Sure.
8	DR. ANIGSTEIN: TIB-0012 and OCAS-001,
9	Appendix B, are really inseparable, so you
10	can't really address one without the other.
11	DR. MAURO: Well, but that's why I bring
12	this up. I mean, it may turn out that it's
13	most convenient and expedient just to
14	integrate the whole issue as an Appendix B,
15	OCAS-001 issue that is currently being
16	addressed as opposed to breaking this out
17	separately.
18	DR. ANIGSTEIN: If Appendix B is fixed, then
19	TIB-0012 goes away.
20	DR. MAURO: Yeah, up until now the
21	particular issue that you raised, Bob, was not
22	an issue that we
23	DR. ANIGSTEIN: Yes, I understand that.
24	DR. MAURO: Right, so this becomes an added
25	item to the Appendix B OCAS concern.

1 DR. ANIGSTEIN: Right. 2 DR. ZIEMER: Could I ask you a question on 3 the white paper? This is Ziemer. Bob, I'm 4 looking at Figure 1, which is the draft or the curve for the DCF factor ^ of energy. So are 5 these the NIOSH data points? 6 DR. ANIGSTEIN: No. Well, yes, yes, I --7 8 DR. ZIEMER: Oh, they are. What I'm trying 9 to understand, I think what you're saying is 10 if they said the sixth point is the mode, 11 well, fifth or sixth, and you're saying, yes, 12 but the energy intervals are not evenly 13 spaced. 14 DR. ANIGSTEIN: That is correct. 15 DR. ZIEMER: So statistically to call that 16 the mode of the distribution may be 17 statistically invalid. And I think what 18 you're saying is instead of about 0.75 or 19 four, whatever that is, use the upper end --20 DR. ANIGSTEIN: It goes, it's more than 21 that. 22 DR. ZIEMER: It levels out at 0.8 or 0.79, 23 but --24 DR. ANIGSTEIN: No, it's more than that 25 because it's not a triangular distribution.

1 DR. ZIEMER: That's right. I understood 2 that. I was just trying to understand the 3 point --4 DR. ANIGSTEIN: My argument is not with the 5 value of the mode as much as with the whole 6 concept because when you fold the triangular 7 distribution into the normal distribution of 8 dosimeter errors, you come up with a mean that 9 is much lower. 10 DR. ZIEMER: Than this mode. 11 DR. ANIGSTEIN: Yes. 12 DR. ZIEMER: Okay, I get you. And then the 13 claimant-friendly values then are different, 14 is that what you're saying? 15 DR. ANIGSTEIN: Yes, and my recommendation 16 as the simplest method would be simply to use 17 a fixed value, not use a triangular 18 distribution which is a fixed value in this 19 case of 0.798, and then fold that fixed value 20 into the distribution of dosimeter error and whatever other value the distributions there 21 22 are. 23 DR. ZIEMER: And have you looked at the 24 impact that that has or does that make a big 25 difference?

1 DR. ANIGSTEIN: We did not run IREP to see, 2 you know, to see the two different methods. 3 We just simply compared that the mean of the 4 distribution that is tabulated in the back of 5 TIB-0012 in this instance was about 38, in 6 other words, you would have 38 percent higher 7 dose if you used the single value that I 8 suggested of 0.798 as opposed to the mean of 9 0.59. Now, I realize the mean is not a single 10 value, so I'm not certain how it would, we 11 didn't go that far. We certainly could if 12 we're asked to. I mean, there would just be a 13 bigger effort if we were asked to prepare 14 essentially a one-page white paper which 15 turned out to be three. 16 DR. ZIEMER: Well, I guess we need to hear 17 the response from NIOSH on this and see 18 whether it's significant or not. 19 MS. MUNN: Can we suggest that NIOSH and 20 SC&A discuss this offline? And that do the ^ 21 that are enumerated in the white paper to have that discussion available for us then when we 22 23 meet face-to-face in December. So can we 24 capture the key issues, the interests that we 25 have. Can we do that, Kathy?

1	MS. BEHLING: I believe that'll be fine.
2	Bob, are you in agreement with that?
3	DR. ANIGSTEIN: I'm not too I have a
4	little trouble hearing, Wanda. Could you
5	restate that?
6	MS. MUNN: I'll try it with my handset.
7	Maybe I'm a little too far from the phone.
8	DR. ANIGSTEIN: Yeah, that's much better.
9	MS. MUNN: I'm suggesting that we have a
10	communication between you and NIOSH with
11	respect to the points that you've raised and
12	that we've discussed here to see if there can
13	be a meeting of the minds. In the meantime,
14	Kathy will try to capture the key issues on
15	the matrix so that we will have written record
16	on it and a proper place for this white paper
17	to go when these issues are resolved. And
18	that we will then address them December $11^{th}$ .
19	Is that reasonable?
20	DR. ANIGSTEIN: It's fine by me.
21	MS. BEHLING: And that's fine by me. I can
22	certainly add these items to the matrix.
23	DR. ZIEMER: I just want to make sure I
24	understand. There's two issues here I guess.
25	One is the issue of the triangular

1	distribution versus the point value.
2	DR. ANIGSTEIN: Uh-huh.
3	DR. ZIEMER: Is that one? And then the
4	other is the use of the mean or the mode
5	versus use of the bounding value?
6	DR. ANIGSTEIN: Well, if we use a point
7	value, then the triangular distribution just
8	goes away.
9	DR. ZIEMER: Right, that goes away.
10	DR. ANIGSTEIN: And then the mode would go
11	away.
12	DR. ZIEMER: And the point value would be
13	the upper end of this curve?
14	DR. ANIGSTEIN: Yeah. But the other
15	suggestion would be if you wanted to go that
16	extra mile to make the most precise, you would
17	come up with a single value. My envision is
18	let's say for this colon case, once you define
19	an exposure, a generic exposure geometry for a
20	particular class of workers at a particular
21	facility, then you could do an MCNP run where
22	you could say, okay, then the photons in the O
23	to 230 keV, 30 to 250, 250 to and above 250
24	and see what the actual values are as compared
25	to the HP-10. And the ratio of that would be

1	your conversion factor.
2	And the additional advantage of that
3	you would have a precise way of knowing what
4	fraction of the photons to assign to each of
5	the three ranges which now is not clear in the
6	various site procedures that I've seen how
7	those fractions are arrived at. And since you
8	can do multiple organs in one run it wouldn't
9	be that labor intensive.
10	That's just a suggestion. But
11	certainly using the maximum would do the job,
12	would be claimant friendly, and there would be
13	a reasonable basis for it.
14	MS. BEHLING: This is Kathy Behling. I also
15	think that it just makes it cleaner. And I
16	believe it might be a little bit more
17	organized for us if we put these findings
18	under OTIB-0012 and indicate in there that
19	this also impacts Appendix B of the
20	Implementation Guide.
21	DR. MAURO: Yeah, what I was thinking from a
22	practical sense the solution, and let's say
23	there is a resolution to this particular item
24	related to this procedure. It will have a
25	ripple effect on NIOSH in terms of the work

1 it's doing across the board on Appendix B to 2 OCAS-001. So I mean, they're connected at the 3 hip, and it's going to be important that 4 whatever is decided and done for -0012 will 5 have certainly an effect on how the bigger 6 picture, the Appendix B issue, is ultimately 7 resolved. 8 MS. BEHLING: And we've done that in the 9 past just like an example is OTIB-0023. When 10 Hans reviewed that, he had, because that was 11 also linked to the Implementation Guide. It's 12 being tracked under OTIB-0023, but the 13 Implementation Guide issue was discussed and 14 NIOSH is also going to address the 15 Implementation Guide along with OTIB-0023. So 16 this has been done before. 17 DR. MAURO: Okay. 18 MS. MUNN: So we're back to our suggested 19 process of NIOSH and SC&A discussing this 20 offline to see if they can reach a resolution 21 of the issues. And we will incorporate the 22 two issues that were raised in the white paper 23 and try to capture the essence of them on the 24 matrix and discuss it at the December 11<sup>th</sup> 25 meeting, right? Is that agreeable?

1	DR. ZIEMER: Sounds good.
2	DR. MAURO: Yes.
3	MS. MUNN: All right, anything else on that
4	particular item?
5	(no response)
6	MS. MUNN: If not, then let's go to response
7	to OTIB-0017-06 and report the position to the
8	work group. We had talked about -0017-06
9	before.
10	MS. BEHLING: John, that's you.
11	DR. MAURO: I was on mute, and I was looking
12	at it and
13	MS. MUNN: Prior adjustments LOD.
14	DR. MAURO: We did not prepare anything in
15	response to this.
16	MS. MUNN: Okay, so it needs to be a
17	carryover?
18	DR. MAURO: It'll have to be a carryover. I
19	apologize. I did not take action on this.
20	MS. MUNN: That's quite all right.
21	And the next items were
22	DR. ZIEMER: Does that, that was a matrix
23	item?
24	MS. MUNN: That was a matrix item, uh-huh,
25	very near the tail end where we stopped.

1 NIOSH and SC&A were to discuss OTIBs -2 0006 and -0007 to determine if they need to be 3 reviewed as documents that have been modified 4 as a result of review or as new documents. 5 And the decision is? MS. BEHLING: The decision was that this was 6 7 just a modified document based on our initial 8 findings, and as we discussed earlier, I've 9 already reviewed these two TIBs. 10 MS. MUNN: Fine, I think we covered that 11 pretty thoroughly earlier in the call. Anyone 12 have any objection to calling that one 13 complete and moving on? 14 DR. ZIEMER: No. 15 MS. MUNN: The next item we have is 16 conducting further clarifying technical discussions on OTIB-0023 and reporting those 17 18 out to the work group. 19 MS. BEHLING: On this item Hans and I did talk with Stu on Monday, the  $\mathbf{5}^{\mathrm{th}},$  and I think 20 we have come to resolution on the OTIB-0023 21 22 findings. 23 And, Stu, I'll let you elaborate. 24 MR. HINNEFELD: We believe there are some 25 clarifying revisions that we can make in OTIB-

1 0023 and then also it affects IG-001, probably 2 a page change in IG-001. That will, that's 3 the findings. 4 MS. BEHLING: And I believe, Stu, during our 5 conversation on Monday, Stu also indicated that he would put together wording as to what 6 7 those changes will be and that will get 8 incorporated again into the new matrix. 9 MR. HINNEFELD: Right, this is part of the 10 new information I'll provide to Kathy fairly 11 quickly and should be available to the matrix 12 for the next meeting. 13 MS. MUNN: That's good. All right. Fine, 14 then we can anticipate that that will be 15 incorporated in the next matrix, and that the 16 only comment that we'll have ^ items, 17 resolution incorporated. 18 The science issue is something that I 19 don't see that we can address here at all. 20 That's another one of the things that we need 21 to discuss with the full Board, try to make sure that we're covering this in our matrix 22 23 process and do it adequately. 24 RESUME MATRIX ITEMS 25 Now we are ready to pick up where we

1 left off at our last meeting with Supplement 1 2 Procedure Findings. We were on OTIB-0017-09. 3 It's page 13 of our matrix items. I believe 4 it's September 25. Are we all there? 5 DR. MAURO: Yes. We're at the point where I 6 guess the ball's in my court. This is John. 7 I reviewed all of the remaining OTIB-0017-09 8 through, I guess, it goes on to the last one 9 on 15. And where we are, we'll start with -10 09. 11 You know, we consider that the 12 response is acceptable, and as far as we're 13 concerned, number nine is closed. 14 MS. MUNN: Excellent. 15 DR. ZIEMER: Hang on just a second. What's 16 the date of the matrix are we working from? 17 MS. MUNN: We're working from the same 18 matrix we were using at our last meeting which 19 is, the original date on it was May 21<sup>st</sup>, 2007, but the revised draft that we were working 20 21 from is dated September 25, 2007. 22 DR. MAURO: The NIOSH responses that we're 23 looking at are all in red. MS. MUNN: Uh-huh. 24 25 DR. MAURO: By the way, the reason you'll

1 see for many of my comments which I believe 2 you're going to find that they're primarily 3 closed, is the general concept that we don't 4 look at OTIB-0017 in a vacuum. 5 This is sort of like a policy judgment 6 that we all discussed during the last meeting 7 where the fact that a particular piece of 8 information is not explicitly provided in this 9 particular OTIB but cross-references other 10 OTIBs, the site profile, the way we're looking 11 at this now is that we look at the particular 12 OTIB as just one part of the suite of 13 guidelines that are available to the dose 14 reconstructor. 15 And as long as there's enough language 16 in the OTIB to alert the dose reconstructor 17 that there is ^, and there are other guidance 18 out there that needs to be considered. In the 19 case of number nine, for example, the response 20 basically says, well, the ^ radionuclides and 21 their energy distributions are all really laid 22 out on a site-by-site basis in the site 23 profile. And we accept that. 24 So that in effect it goes without 25 saying that, of course, when you implement

1	OTIB-0017, you take into consideration the
2	rich information that's contained in the site
3	profile. And it is there. You know, the site
4	profiles do talk about the radionuclides
5	except if there's an issue on a particular
6	site profile where that issue is incomplete.
7	So we have a bit of a, I guess what we
8	have is a situation where we agree with the
9	concept. Namely, if the site profile is
10	basically complete in addressing the range of
11	radionuclides that are at play, then the dose
12	reconstructor is in a position to make an
13	informed judgment on what the energy
14	distributions may be that he's dealing with
15	when he's implementing OTIB-0017. So that's
16	the reason why we feel the issue has been
17	resolved.
18	MS. MUNN: Okay, Paul?
19	DR. ZIEMER: Uh-huh.
20	MS. MUNN: Move on to Finding 10.
21	DR. MAURO: Same thing. It's the same kind,
22	the answer is, yes, this issue is closed from
23	our perspective because in effect you can't
24	expect the OTIB to do everything, and the DR,
25	the dose reconstructor, has access to a lot of

1	other information that's going to allow him to
2	do this in an informed way. And we agree that
3	that has to be the way it's done because it's
4	impossible for any one OTIB to capture
5	everything. So again, for the same reason,
6	number ten we feel is a closed item.
7	MS. MUNN: Eleven skirts around the item we
8	were just discussing in 12.
9	DR. MAURO: Yes, it's the same thing.
10	MS. MUNN: ^.
11	DR. MAURO: Yes.
12	MS. MUNN: Item 12.
13	DR. MAURO: Twelve is a little different.
14	It's basically NIOSH agrees that perhaps a
15	little bit more clarity is needed, but it will
16	be done at a convenient time. In other words
17	at the time when there are revisions this kind
18	of clarification, this is more of a
19	housekeeping issue than it is something of
20	technical substance.
21	So as far as we're concerned, you
22	know, during due process of upkeep on these
23	various OTIBs, this type of comment, number
24	12, is certainly easier to take care of during
25	the next round of revisions. So whether you

1	want to consider that closed or in abeyance
2	I'm not quite sure.
3	MS. BEHLING: I consider that in abeyance.
4	DR. MAURO: Okay, very good. That's helpful
5	because we're really testing the system now
6	and how we're going to classify these things.
7	MS. MUNN: Does anyone disagree with Kathy?
8	It's in abeyance to me.
9	DR. ZIEMER: Uh-huh.
10	MS. MUNN: And OTIB-0013 is a bit of a
11	different thing.
12	DR. MAURO: Again, you notice the cross-
13	referencing to, it looks like the response
14	makes reference to PROC-06, and so from that
15	perspective, yes, we agree, and we consider
16	this to be closed.
17	MS. MUNN: And, Kathy, do we consider that a
18	transfer then?
19	MS. BEHLING: Actually, I just walked away
20	to look for something for a minute, and I
21	apologize. I'm going to have to ask John to
22	repeat what he said. I apologize.
23	DR. MAURO: Yeah, Kathy, what's happening
24	here is a concern is raised here. The issue
25	is the OTIB does not identify any cases where

1 a possibly high POC can be determined early in 2 the investigation. So in other words, it's 3 part of the triage process. That is, when 4 you're using OTIB-0017 for shallow dose, 5 there's a triage process. 6 And our concern was that it's not 7 apparent what that process is. But then the 8 response appropriately so is NIOSH says, well, 9 wait a minute, the triage process is described 10 in PROC-06. That's where that issue is 11 addressed. So I consider that, you know, 12 given the context that there's inter-linkage 13 between all these procedures, I consider that 14 to be responsive to our concern, and from my perspective it's closed. 15 16 MS. BEHLING: Let me ask a question. Does 17 OTIB-0017 prompt the dose reconstructor to go 18 to PROC-06 for that triage process? 19 DR. MAURO: Yeah, in the response in red 20 you'll see the last sentence says in addition 21 OTIB-0017 does give guidance on the topic of a 22 low-high POC potential on page six, items A, B 23 and C. So there is a pointer. 24 MS. BEHLING: Okay. Then that's closed. 25 DR. MAURO: Yeah, so that's why I considered

that this is responsive. Now I have to say I didn't go back to PROC-06 and a review on that to see if there's anything outstanding related to this matter, but I just accepted the fact that this is an issue that's closed because PROC-06 addresses this concern. Now whether or not we have an issue with PROC-06, I'll be the first to say I did not go back and check out where that stands.

10 **MS. BEHLING:** We are addressing PROC-06. We addressed PROC-06 in our first set, and we're 12 also addressing it in our third set. So all 13 of the findings and issues should be covered 14 in the next set, the third set.

1

2

3

4

5

6

7

8

9

11

15 DR. MAURO: Okay. Now, that brings me to 16 the question of one of designation. Since 17 this response basically says there's a point 18 at the PROC-06, now if the fact that PROC-06 19 may be still active, do we close this or is 20 this in abeyance? These get awful 21 complicated. 22 MS. BEHLING: No, I think we close this. 23 DR. MAURO: Okay. 24 MS. BEHLING: I think the only thing I would 25 suggest is maybe let's just go back and look

1	at PROC-06 and be sure that that does satisfy.
2	But if NIOSH says here that they pointed to
3	PROC-06, I think that that should satisfy us.
4	MS. MUNN: I agree.
5	All right, item 14.
6	DR. MAURO: Okay, item 14 is a long one, and
7	I believe that this item is, the response is
8	fully responsive to our concern, and I think
9	we believe that this issue should be closed.
10	MS. MUNN: The 14 is acceptable.
11	DR. MAURO: Yes, and the same thing holds
12	for 15.
13	MS. MUNN: Finding 15.
14	DR. MAURO: Yes, it's the same situation.
15	MS. MUNN: That's a long one.
16	DR. MAURO: Yes, that's a long one very much
17	related to the previous one.
18	MS. MUNN: All right, acceptable.
19	DR. MAURO: So we believe that that's
20	responsive and consider the item closed.
21	MS. MUNN: All right, very good. We do not
22	have another NIOSH response until page 17 on
23	OTIB-0009. This one being addressed is a
24	global issue with the Procedures working
25	group. That's, as I see it, a matter of just

1 identifying that properly on our page in our 2 new matrix. 3 MS. BEHLING: Okay, we'll do that. 4 MS. MUNN: ^ item that I see is page 18, 5 OTIB-0028-01 you have been provided? 6 DR. MAURO: Yes. 7 MS. MUNN: Acceptable? 8 DR. MAURO: Yes. So page 19, -0028-04. 9 MS. MUNN: 10 DR. MAURO: We find this acceptable. 11 Namely, that the answer is that when such a 12 situation arises, they'll be dealt with on a 13 case-by-case basis. In effect, yeah, we 14 raised the question that there are certain 15 circumstances that are not explicitly covered 16 by this protocol in OTIB-0028. And the 17 response is that it will be dealt with. When 18 such a situation arises, it will be recognized 19 and dealt with on a case-by-case basis. 20 I'm not quite sure whether the OTIB 21 alerts the reader to it so maybe I have to go 22 back and take another look at it. But maybe 23 Stu is in a position to, is there, in other 24 words if this circumstance arise, in other 25 words where you're dealing with an AMAD

1 different than five micron, the concern is 2 quite straightforward. 3 There are circumstances when your 4 aerosol may be substantially different and 5 smaller than five micron AMAD. And under 6 those circumstances the doses could be 7 substantially higher if it's smaller 8 especially for the lung for example. And the 9 response is that, well, if that situation 10 arises, do you have the wherewithal for 11 dealing with it. 12 And I agree with that. That is, you 13 know, you could put in different particle size 14 distributions into IMBA and deal with it. The 15 only question I had, I guess, for NIOSH was, 16 is that discussed. I believe it might be 17 addressed in OCAS-002, IG-02, where you 18 deviate from the default on a case-by-case 19 basis. 20 Stu, am I correct with that? 21 MR. HINNEFELD: I think that might be likely 22 to be the place where it is although sitting 23 here today I couldn't tell you for sure. 24 DR. MAURO: Okay. 25 Here's a question to the, this is

1	almost like a generic issue. This is a great
2	example. The procedures all follow standard
3	ICRP protocol. So when you do an internal
4	dosimetry for inhalation, automatically you go
5	with the five micron AMAD.
6	And my understanding is unless there's
7	reason to believe that that aerosol particle
8	distribution might be substantially different,
9	as might be the case if you had a fire and
10	there was a fume or you were doing welding and
11	you're dealing with a fume where the particle
12	sizes are less than one micron, there really
13	is no reason to deviate from the five micron.
14	The question becomes how explicit
15	would, for example, OTIB-0028 need to be in
16	terms of its guidance to the dose
17	reconstructor to alert him to the conditions
18	under which when he may need to deviate from
19	the standard protocol and what to watch out
20	for.
21	Right now, I'm not quite sure. I'd
22	have to check again, but I don't think OTIB-
23	0028 goes there and gives you pointers when
24	you may have to deviate from this procedure,
25	but OCAS-001 does, OCAS-IG-01 does. When you

1	read through that big, thick guideline, it
2	does talk about particle size distributions.
3	So in a way, the way I guess I'm
4	looking at it, and why I would say that,
5	probably this is closed is that when you take
6	it, when you realize that OCAS-001 being the
7	platform that you're building from and that's
8	given as, that is, that's what the dose
9	reconstructor is fully aware, fully trained in
10	the use of OCAS-IG-02 I'll cite that one,
11	too then you could use OTIB-0028 in a very
12	informed way.
13	So the question becomes to what extent
14	does OTIB-0028 need to tell the dose
15	reconstructor that. This is a recurring theme
16	that we run into a lot in all our reviews.
17	You know, how much information really needs to
18	be put into any given OTIB?
19	MS. BRACKETT: This is Liz Brackett. If I
20	could throw something in here. OTIB-0028 was
21	intended to just document the dose conversion
22	factors that we're using for thorium because
23	the values in IMBA are incorrect. So it
24	wasn't intended to go over all of the specific
25	details. We did have OTIB-0060, which is

internal dosimetry. It's not very detailed in here but there is a paragraph on particle size distribution that says the default is five microns, and this value is to be used for evaluating information intakes in the absence of known information as documented in the site profiles or the case file. And so this is supposed to be the guidance for general internal dosimetry issues. And maybe that could use a little bit of strengthening, but OTIB-0028 wasn't really intended to go over all the details related to thorium. DR. MAURO: Yeah, I understand that, and I guess it's just a matter of, I think that

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

guess it's just a matter of, I think that philosophy, the strategy for, as long as everyone really understands that we're really building a system of guidance documents that are all interconnected and interdependent. And that there's a training program so that everyone is fully apprised of the array so that they could use any one document properly within the context of its intent and with due consideration of the other documents. That being the case, an awful lot of our findings go away.

MS. MUNN: Stu, can we be reassured IG-02 is such a basic tool that dose reconstruction would be --

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

21

23

24

25

MR. HINNEFELD: Well, I think the document that Liz mentioned, the OTIB-0060 or PROC-60, whichever it is, that is described, you know, the title is "Internal Dose Reconstruction" is probably a more commonly referenced direction and probably a more commonly used as long as anybody ever comes new onto the program any more that that would be the location where you would expect it. I think IG-02 is like the fundamental underpinnings, but I don't know that very many people rely on it for a day-today instruction.

16 MS. BEHLING: This is Kathy Behling. What I 17 see in dose reconstruction reviews is exactly 18 that. Typically, they will go to the OTIB-19 0060 now as opposed to the Implementation 20 Guide, but I do think OTIB-0060 does provide an adequate explanation of this. 22

MS. MUNN: We can call this acceptable given the circumstances.

DR. MAURO: I agree.

MS. MUNN: All right. ^ closed on item 6-

1	04. Likely the same would apply to 11-01,
2	outstanding issue there, 01 and 02. More
3	issues?
4	DR. MAURO: I'm sorry. I just lost track a
5	bit. Are we, which OTIB are we on now?
6	MS. MUNN: We're on OTIB-0011.
7	DR. MAURO: Eleven, that's the tritium one,
8	okay.
9	MS. MUNN: One and two.
10	DR. MAURO: Yeah, we've resolved that
11	previously I believe.
12	MS. MUNN: There was just a slight addition
13	there. I wanted to make sure it was
14	acceptable and closed.
15	DR. MAURO: Yes.
16	<b>MS. MUNN:</b> OTIB-0019-01.
17	DR. MAURO: Let me get there. I'm flipping
18	through my big book. It's a little easier for
19	me to get oriented.
20	MS. MUNN: That's all right.
21	MR. HINNEFELD: Oh, 19-01 is the one we
22	talked about off the agenda. That's where we
23	owe an alternative response which is not yet
24	ready.
25	DR. MAURO: Oh, yes, yes.

1	MR. HINNEFELD: That was one of our action
2	items from on the agenda.
3	MS. MUNN: Right.
4	DR. MAURO: Yeah, we discussed this
5	previously, that's correct.
6	MS. MUNN: That's right. My action item
7	that I did record back up there was reword
8	OTIB-0019 in process. Forward the responses
9	before the 11 <sup>th</sup> , right?
10	DR. MAURO: Right, I recall this. As a
11	matter of fact Bob Anigstein might be on the
12	line.
13	DR. ANIGSTEIN: Yes. If I remember
14	correctly, Jim Neton said that they're going
15	to reword the OTIB-0019.
16	MS. MUNN: And that's just what I have on my
17	notes, for action. All right.
18	TIB-0012, no response required, that
19	one's closed?
20	DR. MAURO: Yes.
21	DR. ZIEMER: Twelve was just discussed.
22	MS. MUNN: Yes. OTIB-0004, response from
23	NIOSH.
24	DR. MAURO: This has some history. A lot of
25	the issues that are still active here are

1 going to some global discussion regarding 2 ingestion, oronasal breathing, that sort of 3 thing. I'm not sure how we resolved them at 4 the last meeting, but we did speak to this 5 extensively. 6 MS. MUNN: Well, it says in another context 7 that it would go to the global issues. Is 8 that the same? Is it also true here? What do 9 we want to do with this one? So work group 10 members take a moment to refresh your memory 11 and read the wording on this one. 12 (Work group members comply) 13 MS. MUNN: Does this go to global issues 14 under the --DR. MAURO: I think each one has its own 15 16 little story, and I think they're all in hand 17 so to speak. They're being dealt with. Ι 18 believe, you know, for example, the very first 19 one, number one, goes toward the inhalation 20 rate, 1.2 cubic meters per hour. And also at 21 the same time if you remember when we started 22 to discuss the 1.2 cubic meters per hour as a 23 generic value, we also found ourselves 24 diverting into, wait a minute. Is OTIB-0004 25 intended solely for uranium metal facilities

or does it also include processing facilities?
And that was an important issue that
NIOSH previously reported back. This was like
an issue that I don't think was actually
written up. But NIOSH reported back to
confirm that OTIB-0004 is only for
metalworking facilities and did not apply to,
and that sort of closed that out. So I think
that issue was raised. That was actually
captured here on page 21.
MS. MUNN: That's acceptable, and we can
close that one.
DR. MAURO: Right.
MS. MUNN: ^
MR. GRIFFON: I'll tell you, Wanda, one
comment on that though just for other readers
that NIOSH response in red doesn't respond to
the findings so it's kind of confusing.
DR. MAURO: That's correct.
MR. GRIFFON: I understand after John's
explanation, but just to, I don't know how we
deal with that, but
DR. MAURO: And I get back to the 1.2. I
only brought that up because that issue did
come up. Somehow it emerged over the course

of the 1.2.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

**MR. GRIFFON:** I know. I was reading the response and saying how does this relate to the breathing rate? It doesn't really.

DR. MAURO: I think the breathing rate is part and parcel to the, in other words, when do you deviate from 1.2, and you go to 1.7? That was one of the concerns. And I think that while I know that there are times when NIOSH does use 1.7 as being an upper bound for very heavy work, and we did discuss the fact that since OTIB-0004 is a generic bounding protocol for denial only for AWE facilities metalworking.

We all agree that that kind of work very often is very strenuous. And the issue had to do with whether or not it makes sense for OTIB-0004 to use something other than 1.2. I think you may have gone to 1.7 in Bethlehem Steel. I'm not sure. But I don't know if this issue is resolved.

> MS. BEHLING: This is Kathy. I don't consider this issue resolved. I believe this is still, that it could be transferred to the global issue, but it's still an issue that

1	needs to be discussed. That's my reading.
2	MS. MUNN: Well, my reading is that we
3	captured that in two where we specifically
4	said that the breathing is a global topic.
5	MR. HINNEFELD: Two describes oronasal
6	breathing, in other words people who are mouth
7	breathers, that impact. That is the breathing
8	rate, and that's 1.2. If I'm not mistaken,
9	1.2 cubic meters per hour or whatever, is a
10	combination actually of at rest and heavy
11	labor. So it's not like people are taking it
12	easy and breathing 1.2 cubic meters per hour.
13	It's a combination of at rest and heavy labor.
14	And there's some discussion I believe about
15	can someone really work eight hours laboring
16	so hard.
17	DR. ZIEMER: Well, we had that discussion at
18	the last Board meeting. I think Jim Neton
19	MR. HINNEFELD: Jim was on at the last one,
20	and
21	DR. ZIEMER: And Jim cited some reference
22	indicating that a worker could not work at the
23	heavy rate for eight hours.
24	MR. HINNEFELD: Right.
25	DR. MAURO: You're right. Yeah, I recall

that.

1

2 MR. GRIFFON: But I think that was kind of, 3 it's going back to the global question. I 4 think that was kind of Jim's update on those. 5 I mean we haven't seen necessarily a white paper on that from Jim. 6 DR. ZIEMER: Right, that was a status report 7 8 at that point. But I think the 1.2 is not 9 necessarily just a light breathing rate. It's 10 some kind of a --11 MR. GRIFFON: Agreed, yeah. 12 DR. ZIEMER: I guess the question is what do we do with this at this point. 13 14 MR. GRIFFON: I think it's going to be one 15 of those topics that's going to be in that 16 generic paper. Is it not being addressed in 17 addition to oronasal breathing? Isn't it for 18 also part of --19 MR. HINNEFELD: I'd have to talk to Jim. 20 MR. GRIFFON: Yeah, I'm not sure either. 21 DR. MAURO: Yeah, when we had this 22 discussion, I mean, Jim certainly made a very 23 convincing argument that you're not going to 24 have someone working eight hours a day at 1.7. 25 He'd hyperventilate. And I know I certainly

believe that, but that was the response. Now the question becomes to what degree do we need a white paper or something, in other words, in order to close this item, do we need something, a record, saying, listen, here's the reason we, and I certainly accept that as being, you know, we did not investigate that.

8 MR. GRIFFON: I would think we do, John, 9 because on those overheads that Jim showed 10 also there was some, at least to me, there was 11 some numbers that weren't intuitively obvious. 12 I mean, they were kind of counterintuitive, a 13 couple were --

1

2

3

4

5

6

7

23

24

25

14 MR. ELLIOTT: This is Larry Elliott. I'm 15 sorry. I was answering, but you couldn't hear 16 me because I had you on mute, and Stu stepped 17 in there thankfully. But I do want to reiterate that, yes, Jim will be preparing a 18 19 summary paper on this issue, and that's what 20 you should be waiting for. 21 MR. HINNEFELD: Well, that's where it's at

21 MR. HINNEFELD: Well, that's where it's at 22 now.

**DR. ZIEMER:** It is kind of a global issue, isn't it?

MR. ELLIOTT: Yeah, it's a global issue.

1	You know, we don't consider it to be wrapped
2	up and final because, just because Jim made a
3	presentation of it at the Board meeting.
4	There's got to be this delivery of this paper,
5	white paper, on it.
6	MR. GRIFFON: Sounds good.
7	MS. MUNN: Well, our action item here is
8	that both $-01$ and $-02$ are actually global
9	topics, and that NIOSH will present a white
10	paper, right?
11	DR. MAURO: Can we label this transfer-
12	global issues?
13	MS. MUNN: That would be my assumption.
14	Kathy?
15	MS. BEHLING: That's what I believe, yes.
16	And I'll also make note that there'll be a
17	white paper being presented.
18	DR. ZIEMER: In fact, notice down the next
19	item, the oronasal breathing issue pops up
20	again.
21	MS. MUNN: Yeah, that's why I was saying
22	both 01 and 02.
23	DR. ZIEMER: And 02, yeah.
24	MS. MUNN: They both go in the same
25	direction.

1 So for the next NIOSH response ... DR. MAURO: Well, 03 and 04 are dealing 2 3 with, I believe, recycled uranium and the 4 documentation. The concern was in OTIB-0004 5 there are certain default values for recycled uranium imbedded in the matrix. And the 6 7 response that NIOSH gave is that they're 8 looking at that on a generic basis. I guess 9 there's an OTIB-0053 that's coming out. So 10 the way I see it is that both these items would be transferred to the review of OTIB-11 12 0053. MS. MUNN: Both of the remaining OTIB-0004 13 14 items. 15 DR. MAURO: Yeah, that would be number three 16 and number four under OTIB-0004. 17 MS. MUNN: Move to OTIB-what? 18 DR. MAURO: OTIB, O-R-A-U-T OTIB-0053. 19 MS. BEHLING: Stu, is that out yet? 20 MR. HINNEFELD: Not yet. 21 MS. MUNN: Pending. As I go through this 22 looking for other responses from NIOSH that we 23 haven't addressed yet, and these items that we 24 still are carrying that you know can be closed 25 for any reason, please stop us.

1	The next item that I see is on page
2	26, ORAU OTIB-0014, finding 1. It's going to
3	be
4	DR. ZIEMER: Does it start on 25 or, oh no,
5	I see it, 26, yeah.
6	MS. MUNN: It's 26 and it goes immediately
7	to seven. Most of it's on 27.
8	DR. MAURO: I'm sorry, Wanda. We're on
9	OTIB-0014 now?
10	MS. MUNN: Yes, we're on OTIB-0014. ^, Stu?
11	MR. HINNEFELD: It's OTIB-0014.
12	MS. MUNN: OTIB-0014-01.
13	MR. HINNEFELD: This OTIB concerns
14	assignment of environmental internal doses for
15	workers not exposed. In other words when,
16	it's a technique for environmental internal.
17	The first finding here has to do with, you've
18	got to be cautious when applying this approach
19	to construction workers, and we feel like
20	maybe that comment has been sort of overcome
21	by the issuance of the construction worker
22	OTIB, OTIB-0052. But we agree that, yeah,
23	these are kind of special situations.
24	DR. MAURO: Wanda, we agree with that. That
25	is, OTIB-0052 on construction workers is a

1	major OTIB. I believe we have already begun
2	the process of that. I think it came up in
3	one of our meetings, but that has, that's sort
4	of like a standalone big special one.
5	DR. ZIEMER: Right, right.
6	MS. MUNN: Yes, it is. And so -0014-01 is
7	acceptable and can be closed?
8	DR. MAURO: Do we close that or do we
9	transfer it to -0052?
10	MS. MUNN: Transfer it to -0052.
11	There's OTIB-0025-01.
12	DR. MAURO: Give me one second. Oh, I
13	believe this item is, well, let me tell you
14	what it was. I believe it's closed. It has
15	to do with the radon breath analysis for the
16	purpose of determining body burden.
17	DR. ZIEMER: Yeah.
18	DR. MAURO: And I may need a little help
19	here. The way I understand it is that when
20	you take the radon breath sample from a
21	person, depending on his level of activity,
22	that is, his breathing rate, will have a
23	substantial effect on the results. So in
24	other words, if he's resting, so you're going
25	to collect a sample there to get a number of,

1	I guess, picocuries per I'm not quite sure
2	of the units but the breathing rate will
3	affect the rate at which radon is being
4	exhaled. And therefore, affect how you
5	convert that measurement on exhaled radon to
6	what the body burden is.
7	And I believe the response was, well,
8	we're doing it the right way. We're using
9	default ICRP-66, a breathing rate of 20 liters
10	per minute in performing this calculation.
11	And I guess I'm not familiar enough with this
12	particular protocol except I know that it was
13	reviewed in detail by Mike Thorne (ph), and he
14	came away favorable. In other words, he was
15	very favorably, he gave high scores.
16	The only thing he cautioned, and it
17	was really more of a caution, that when you're
18	looking at this data and interpreting the data
19	and then assigning radium body burden based on
20	the data, that you could be off by, I guess,
21	not an insignificant amount depending on the
22	conditions under which the breathing zone
23	sample was taken. And that was a caution.
24	Now I guess I'll punt at this point.
25	To the extent to which your protocol and how

1 you use the data for radon breath analysis 2 takes into consideration that concern. Ι 3 mean, if your protocol takes --4 DR. ZIEMER: That's more of a sample 5 handling concern though, right? 6 DR. MAURO: Well, it's sort of like when the 7 original sample was collected, in other words, 8 let's say we have a record of a person that we 9 can estimate his body burden based on radon 10 breath analysis. And the only caution was 11 that there is a standard protocol, I guess, 12 that, the assumption is made, I guess, that 13 the sample was taken when the person's 14 breathing rate was 20 liters per minute. So 15 that's sort of like built into the analysis. 16 And the reviewer, Mike Thorne, simply 17 pointed out if that wasn't the case at the 18 time of the sample whereby the breathing rate 19 was substantially different, you're not going 20 to get the right number, and you could 21 possibly underestimate or overestimate. And 22 that was the concern. 23 That's about the best I can do to 24 communicate what the concern was, and I guess I'll leave it to NIOSH. If you have that well 25

in hand that's fine. Or if it's really an issue that's a minor issue and marginal but that was the concern that was expressed, that you could be off by a lot. And I think Mike Thorne in his write up, you know, the big report, goes into that a little bit. MR. HINNEFELD: Well, my reaction originally is that I don't think that we hardly ever use that. I mean, there are not that many instances where we have radon breath data at only a handful of sites, and so this isn't used a whole lot. And I guess I can't speak any more knowledgeably about it right now. So I guess, John, the issue here being that the radon is expected to emanate into the lungs at a particular rate, so it's a pretty good rate per day that's directly based on the

1

2

3

4

5

6

7

8

9

10

11

21

25

12 13 14 15 16 17 18 radium body burden. And the volume or the 19 rate at which the person is breathing at the 20 time of sample, and he breathes out the dust sample would dictate what would affect what 22 the concentration is. 23 DR. MAURO: That was a concern, yes. MR. HINNEFELD: ^ is measured in a radon 24 concentration in the exhaled air.

1 DR. ZIEMER: Well, just an observation, this 2 is a typical sort of a bioassay procedure. 3 It's not done during the middle of a work 4 cycle. You don't jump in and take a breath 5 sample while a person is doing heavy work. 6 They go to a lab somewhere. They're probably 7 sitting down. Their actual breathing rate 8 would be at the low end of things rather than 9 at the high end. You know what I'm saying? 10 In other words they're going to have a 11 sort of a moderate or low breathing rate 12 because it's more like a resting condition 13 just for sampling. And so if a higher 14 breathing rate gives you an underestimate, but 15 you're not really going to have that condition 16 unless you take a person in the lab and put 17 them on a treadmill and then take a sample or 18 something. 19 DR. MAURO: Yeah, Paul, I would agree 20 because I'm looking at the scorecard right now 21 that was used in our main report, and it got 22 all fives across the board. And the reason it made it into the matrix is that in converting 23 this write up into the matrix, one of the 24 25 observations was almost like a caution.

1 But quite frankly, I accept the 2 argument that, listen, this is going to be, if 3 they're doing radon breath analysis, they are 4 following standard protocol which clearly they 5 are because Mike Thorne did review the 6 protocol. There's no reason to believe they're going to deviate and do something 7 8 foolish. I mean, I'm prepared to accept that 9 as being a reasoned argument, and that using the standard default value of 20 liters per 10 11 minute is probably a reasonable way to deal 12 with this problem. So I, for one, feel that -13 - Mike Thorne isn't on the line. He's in 14 Great Britain, but he gave it all fives, so 15 I'm okay. 16 MS. MUNN: Particularly in light of the small number of claimants this is likely to 17 18 affect. 19 DR. MAURO: Yeah. 20 DR. ZIEMER: But I think aside from that, it 21 has to be the right decision regardless of the 22 number of claimants. And I think you could 23 argue that you'd have to have an artificial 24 construct and get a high breathing rate on a 25 lab sample.

1 MR. HINNEFELD: Yeah, I think in point of 2 fact the breathing rate in a lab could quite 3 likely be lower than 20 liters per minute for 4 this using 20 liters --5 DR. ZIEMER: Yes, you would overestimate. 6 MR. HINNEFELD: Overestimate the burden. 7 DR. ZIEMER: Yeah. 8 DR. MAURO: Maybe for the purpose of, I 9 mean, let us say mechanistically we're dealing 10 with this. I think that the explanation --11 see, right now the explanation is pretty short. It says -- if you look in the matrix 12 in red -- it says the default ICRP breathing 13 14 rate of 20 liters per minute is used for all 15 intake assessments. Now a little bit more 16 explanation of the kind that we're talking 17 about --DR. ZIEMER: In other words, why would you 18 19 use that? 20 DR. MAURO: Yeah. And why we're okay --21 DR. ZIEMER: This is reasonable for a person 22 undergoing a laboratory bioassay. 23 DR. MAURO: And perhaps conservative. 24 MR. HINNEFELD: Right. 25 DR. MAURO: Yeah, I think that would put

this one to bed.

1

25

2 MS. BEHLING: The only other thing I'll 3 mention is this is going to be an issue at the 4 Fernald site, and so there will be possibly a 5 lot of people that this may impact, but it's 6 being looked at very closely also. So when it 7 does become an issue that is being used 8 especially for like I said the Fernald and 9 under the SEC I think this is one of the 10 issues. It's being looked at in close detail 11 as to the approach that was taken and so on so 12 it's really being covered in that aspect of 13 things at the site profile level or the SEC 14 level. 15 This is Bob Anigstein. DR. ANIGSTEIN: 16 Going back to the discussion of the breathing 17 rate for different activities, I just looked 18 The ICRP 1.2 cubic meters per hour is up. 19 strictly for light activity. 20 MR. HINNEFELD: Well, it's called light 21 activity in the ICRP, but the basis behind 22 that though, the light activity number, is 23 some portion of time at rest and some portion 24 of time at more strenuous labor. There's

another document underpinning that, that term

1	light activity. That's what they describe
2	light activity as. And so for a breathing
3	rate in a laboratory where they take somebody
4	to the lab and have them breath aged air and -
5	_
6	DR. ANIGSTEIN: I wasn't referring to the
7	radon exposure. I was referring to the
8	previous discussion on this that we just
9	finished.
10	MR. HINNEFELD: Okay.
11	MS. MUNN: So can the action item be that
12	NIOSH will augment its report to clarify the
13	point
14	DR. ZIEMER: Probably just need a couple
15	more sentences.
16	MR. HINNEFELD: A couple more sentences is
17	what I would expect.
18	MS. MUNN: All right.
19	Page 34, PROC 0067-01.
20	DR. MAURO: I'm sorry, Wanda, could you help
21	me out a bit? I'm following the matrix, and I
22	just lost track here. Where are we? What
23	OTIB?
24	MS. MUNN: We're on PROC 0067-01.
25	DR. MAURO: PROC 0067.

1	MS. MUNN: We didn't have any new NIOSH
2	responses prior to that.
3	MS. BEHLING: Page 34, John.
4	DR. MAURO: Okay, thank you. Thank you.
5	Let me get myself oriented a bit.
6	DR. ZIEMER: It looks like NIOSH has agreed
7	to apply, to add a flowchart to the next
8	revision. Is that how you interpret this?
9	DR. MAURO: Oh, okay, I'm getting myself
10	oriented. I think we're into all of the QA
11	procedures now.
12	MR. HINNEFELD: Right.
13	DR. MAURO: We've sort of left the technical
14	procedures.
15	MS. MUNN: We have.
16	DR. MAURO: Okay, good, good, that helps me.
17	And unfortunately, the author of our review I
18	don't believe is on the line, Steve Ostrow,
19	but I am familiar with a lot of the
20	DR. ZIEMER: Well, this is pretty
21	straightforward.
22	DR. MAURO: Yeah, yeah.
23	DR. ZIEMER: The finding was to provide a
24	flowchart to help the users, I guess.
25	DR. MAURO: In fact, not only that, I think

1 when you go over all of, a large number of the 2 reviews of the procedures, the comments, they 3 all have to do with context, like the concept 4 of a flowchart in terms of, okay, you have a 5 comprehensive quality assurance program which is made up of a whole array of procedures, I 6 7 think a recurring theme is it's difficult to 8 see where any one procedure fits into the 9 matrix of procedures or the flowchart. 10 DR. ZIEMER: The big picture. 11 DR. MAURO: The big picture. If the big 12 picture was communicated and then every one of 13 the individual procedures is sort of part of 14 the puzzle, that would really help us judge 15 the completeness of the program and the role 16 of any given procedure within the program. So 17 the flowchart issue I think goes toward an 18 awful lot of the comments that we're going to 19 be going over here. 20 DR. OSTROW: Hey, John, this is Steve 21 Ostrow. 22 **DR. MAURO:** Oh good, Steve, great. I'm so 23 glad you're able to join us. 24 DR. OSTROW: I'm awake, too, after all this 25 stuff. That's my general comment, too. It's

1 a little bit difficult reviewing some of these 2 procedures, QA-type procedures. Unless you 3 have an overview of the entire system, it's 4 hard to see how each one fits in. Each 5 procedure would benefit very much from maybe 6 one standard page that shows a diagram of the 7 hierarchy of procedures starting out with the 8 QA procedure on the top and where all these 9 little, smaller procedures fit in. 10 DR. ZIEMER: Again, it appears that NIOSH 11 concurs with that idea and is indicating 12 they'll consider that in a future revision. 13 Is that correct? 14 MR. HINNEFELD: Well, we will, yeah. We 15 agree that considering a flowchart. Now what 16 Steve just talked about which is, and John, 17 which is context and how the various documents 18 relate, I'm not 100 percent familiar with 19 these documents, but it would seem that if the 20 Quality Assurance program was ^ I believe that 21 was reviewed, wasn't it? DR. OSTROW: Yes, it was. 22 23 MR. HINNEFELD: Was it? 24 DR. OSTROW: Uh-huh. 25 MR. HINNEFELD: So then this same finding

1 would be there then apparently. Because to me 2 that would be the place where the context 3 should be set. 4 DR. OSTROW: Well, I think you could have 5 one standard page in each one of these 6 implementing procedures that show how it fits 7 into the overall picture. 8 DR. ZIEMER: You mean the same flowchart? 9 Same flowchart? MR. HINNEFELD: 10 DR. OSTROW: It could be the same flowchart 11 just with a different box highlighted in each 12 procedure just to show the individual procedure. And that's all I envision it. 13 Ι 14 mean, there are probably other ways to do it, 15 It would just be the same page for every too. 16 single procedure, same diagram. 17 MS. MUNN: NIOSH and SC&A need to discuss 18 this and perhaps put a straw man out to ^ work 19 about being unduly burdensome for both the 20 agency and the contractors. Is it possible to 21 do that? 22 DR. ZIEMER: Well, the other way of looking 23 at it, NIOSH says they'll consider this in 24 their future revisions, and they may need to 25 take a look at, I could see a flowchart that

1 was so complex it wouldn't be helpful. There 2 are a lot of procedures, so it may be that you 3 would highlight certain ones or groups of -- I 4 don't know. I think you'd have to take a look 5 at the total picture. 6 DR. MAURO: In a way, Paul, this sort of is 7 not unlike the conversation we had earlier 8 about the suite of technical procedures, how 9 they're all interconnected, interlocked and 10 interdependent. The red write up that starts 11 on page 34 of the matrix --12 **DR. ZIEMER:** Yeah, that's what we're looking 13 at. 14 DR. MAURO: Right, I was just reading it 15 again, you know, just to refresh my memory. 16 In effect what that write up is doing is it 17 explains, yeah, there is this very --18 DR. ZIEMER: Hierarchy of --19 DR. MAURO: -- you know, now the question 20 becomes do you need to, every time you write a 21 particular procedure, it certainly would be 22 helpful to understand the context. The 23 question becomes is that something that is 24 necessary to do for each procedure if, in 25 fact, all of the dose reconstruction folks are

1 fully apprised and trained in the overall 2 program, Quality Management program, and 3 understand where that particular procedure 4 fits in. 5 MR. ELLIOTT: This is Larry Elliott. We've 6 said we'd consider this in our efforts to 7 revise in the future. So, you know, I hear 8 this as a constructive comment. We're going 9 to take it to heart, and I don't see it 10 necessary for this working group to belabor 11 the point. Yeah, I don't think we need to 12 DR. ZIEMER: 13 solve the issue here. I think it's been 14 raised, maybe need to consider how it could be 15 done in an efficient way that would be helpful 16 to the constructors. 17 MR. HINNEFELD: My one smart aleck comment 18 here, of course, is we don't like it to be 19 easy for reviewers. It serves a purpose of 20 the Quality Assurance folks and whoever else 21 uses them on the ORAU side because the ORAU 22 procedures would generally be used by the ORAU 23 staff. If it serves their purposes, then I 24 think that's the test. But that's not to say 25 that an outside reviewer can't add value in

1	making comments like this.
2	I don't want to just shut it down, but
3	I think we all want to bear in mind before we
4	go too far now what's the appropriate path
5	here is to make sure that the Quality staff
6	that reads, you know, reads these with an open
7	mind and says, okay now, realistically, what
8	will be helpful to us and helpful to potential
9	new hires. We don't have very many new hires
10	anymore, but potential new hires for attrition
11	and things like that.
12	DR. ZIEMER: And if it's not helpful to
13	them, then you don't want to spend a whole lot
14	of time on it.
15	MR. HINNEFELD: Yeah, right.
16	MS. MUNN: Will you use the ^ which is what
17	I suggested that ^ at least some kind of a
18	straw man to see how complex or how simple
19	such a chart would be to evaluate whether
20	DR. ZIEMER: Well, I think Stu has suggested
21	that it needs to be designed for the needs of
22	the users, not the needs of the reviewers. So
23	probably it should be approached by the NIOSH
24	end of things I would think.
25	MR. ELLIOTT: Yeah, isn't it enough that we

1 hear this comment and we've accepted it? 2 We're going to give it due consideration and 3 if the working group wants to add weight to 4 this, you could advance it as a recommendation 5 for the full Board to pass on to us. But at 6 this point I think it's really something that 7 we have to take up here and evaluate in the 8 scheme of things, and in a broader context, we 9 have a request for proposals and a new 10 contract award coming up. We have to look at 11 it in that light. We have to look at it where 12 things currently stand with the development of 13 all of the technical tools as well as the 14 quality control and quality assurance 15 procedures that we want to employ as we move 16 forward. So I really think it's on us at 17 NIOSH to take this to heart and to look at 18 what merit it brings. 19 MS. MUNN: I have no problem with that. The 20 question is can we therefore close this item 21 with that discussion in mind? 22 DR. ZIEMER: I think we can close it. 23 They've made the commitment. 24 MS. MUNN: Is that acceptable? 25 DR. ZIEMER: Obviously there has to be a

follow up. Is this one of those things that is --

MS. BEHLING: In abeyance.

1

2

3

4

5

6

7

8

9

10

11

12

MS. MUNN: Well, I don't know. My question then becomes in abeyance as of when or because of what? NIOSH has said they will consider this, and we have to work on the premise that it would be considered an applicable tool only in cases where it would be applicable. Otherwise, how can we hold something in abeyance until we have made a judgment that this is an appropriate tool to apply?

13 MR. HINNEFELD: This is Stu Hinnefeld, and 14 this is a thought. I don't want to sound 15 cavalier about Quality Assurance here so I'm 16 going to try to be careful about what I say. 17 But the majority of the documents that have 18 been reviewed are technical documents that 19 provide technical basis for the manner in 20 which a dose reconstruction is done correctly, 21 i.e., in accordance with the program 22 direction. So that's a scientific or 23 technical review of is this process being done 24 scientifically correctly. 25 Quality Assurance set of procedures

which describes doing them in accordance with the rules, the work group may want to decide that that's not a place they want to go, or they may want to decide that Quality may be a place they want to go. But I'm not so sure looking at the Quality procedures we'll get very far on that. It may be product quality or something else. I don't know how to do that. But I just think that the Quality procedures may have not very fertile ground for meaningful assistance to the program by going through these and worrying too much about these.

1

2

3

4

5

6

7

8

9

10

11

12

13

14 DR. MAURO: This is John. I also have an 15 observation. I and Steve and others have 16 prepared and have reviewed Quality Assurance 17 procedures on many occasions in many different 18 contexts. And usually the procedures are very 19 complete, and that is they make a commitment 20 to quality. What I find is the degree to 21 which those procedures are, in fact, implemented. 22 23 In other words, this is just my own 24 perspective. The added value comes from 25 determining the degree to which that any

1 organization is, in fact, following its 2 procedures. That becomes more important than 3 whether or not the procedures themselves seem 4 to be reasonable and complete. So, I mean, I 5 don't know if that helps any. 6 Basically, what Steve found in 7 reviewing all your procedures is that by and 8 large you've got yourself a comprehensive 9 program except that it's difficult to follow 10 piece by piece without having a roadmap. And 11 it sounds like you folks are certainly 12 prepared to try to consider that. My 13 observations regarding the Board's role and 14 our role in supporting the Board is the degree 15 to which there is any value to actually 16 auditing the degree to which the procedures 17 are being followed. 18 Now I may be overstepping my bounds, 19 but that's where value is added. But that 20 also, of course, is incorporated into their 21 own procedures. For example, they have an 22 internal auditing, they have a set of 23 procedures and way to audit that the 24 procedures are being followed. The degree to 25 which the Board wants to weigh in there is

1 certainly the purview of the Board. 2 So forgive me if I sort of stepped 3 outside, but I've been involved in a lot of QA 4 kind of activities in the nuclear power 5 industry so I'm pretty familiar with the 6 process, and I just wanted to pass that on. 7 MS. MUNN: Well, can we find this response 8 to be acceptable and close this item or not? 9 DR. MAURO: Steve, from SC&A's perspective 10 how do you come out on that looking at the 11 picture collectively? 12 DR. OSTROW: Well, I think so. I think we 13 could close it out. Just rely on NIOSH to 14 include a roadmap if they feel it's beneficial 15 to their own reviewers, to their own use of 16 the procedures. This is a suggestion, not a 17 fault, that was found. 18 MS. MUNN: I think this is acceptable-19 closed. 20 MS. BEHLING: So am I. 21 MS. MUNN: Item two. 22 MR. ELLIOTT: Thank you, Steve. This is 23 Larry Elliott. I appreciate you offering that 24 as a suggestion. It certainly is important to 25 me, and we will fully look at it.

1	DR. OSTROW: This wasn't a criticism of the
2	procedures. It was just a suggestion to how
3	to improve the use of them.
4	MR. ELLIOTT: That's the way I was taking
5	it, too. Thank you.
6	DR. ZIEMER: I think the next one is sort of
7	in the same boat, discuss how the procedures
8	fit into the overall Quality Assurance
9	program. That looks like another one that's
10	sort of intended to help the outsiders
11	understand it, but
12	DR. OSTROW: There's a number of similar
13	type comments.
14	DR. ZIEMER: So does it actually affect the
15	yeah.
16	DR. MAURO: I'm looking through all of the
17	remaining SC&A comments right on through, I
18	guess, the last comment that's on page 42, and
19	they all basically are the same comment.
20	DR. ZIEMER: Right.
21	MS. MUNN: Pretty much, and the response is
22	primarily we'll consider that if it's
23	necessary. Is there any objection to marking
24	all of these acceptable and closed?
25	DR. OSTROW: This is Steve. I don't object

1 to that. 2 DR. ZIEMER: A lot of these, they're 3 understood as suggestions and will be 4 considered in the future revisions of --5 MR. ELLIOTT: Stu, I think we're okay with 6 that, aren't we? 7 (no response) 8 MR. ELLIOTT: Stu, are you still there? 9 MR. HINNEFELD: Hi, I muted myself because 10 my phone beeped awhile ago. Yes, that's 11 acceptable to me. 12 MS. MUNN: All right, then the last one of those is on 42 of page 42 of 42. 13 14 Very good. We managed to make it 15 through the second matrix. Amazing. 16 DR. ZIEMER: Very good. 17 MS. MUNN: But we still have open items, but 18 at least we've gotten through it once. That's 19 great. 20 Now, we had expected for us to have a 21 15-minute break about now. Probably a good 22 time to do it. We don't have a great deal 23 left in front of us, that I am aware of. 24 DR. ZIEMER: I don't show a 15-minute break 25 for another hour yet.

1 MS. MUNN: What? 2 DR. ZIEMER: You have a 15-minute break at 3 3:30, but it's only 2:30. 4 MS. MUNN: Well, yes but then we've been at 5 it for an hour and a half. If you don't want to do it, we'll just go right on. 6 7 DR. ZIEMER: What do we have left? 8 DISCUSSION OF THIRD SET 9 MS. MUNN: What we have left is I want to 10 just have a brief discussion, and I know it'll 11 be brief because nobody's had an opportunity 12 to really and truly absorb it, on the information we just received from SC&A, a 291-13 14 page document that's been received. And I 15 doubt, I know I haven't had any opportunity to 16 do more than just scan it very quickly. 17 DR. ZIEMER: I don't think I've gotten that 18 one. When was it sent out? 19 MS. MUNN: It's brand new. I think it was 20 yesterday. MR. HINNEFELD: October 30<sup>th</sup>. You talking 21 22 about the third set? 23 MS. MUNN: The third set. 24 MR. HINNEFELD: The one prior to Privacy Act review was sent on October 30<sup>th</sup>. 25

1 MS. MUNN: The one that -- here it is. I'm 2 trying to get back to the first page so that I 3 can see it. It's October 2007, October 29 4 effective date, draft, 291 pages. NIOSH/ORAUT 5 methods used for dose reconstruction, review 6 of the third set of procedures. Forty-five 7 procedure reviews covered. It's very 8 extensive. 9 Kathy, is it your expectation that 10 this will appear on the --11 MS. BEHLING: I'm hoping to get that on to 12 the new matrix, yes. 13 MS. MUNN: There's a lot there. 14 MS. BEHLING: Yes, I know. In fact, let me ask this. Since there is a lot there I would 15 16 assume that the priority should be for me to 17 try to get the third set findings into the 18 matrix format that we currently, or that we're 19 going to be using, the new matrix format. And 20 then if I can't get everything done, 21 hopefully, that will certainly be done by the 11<sup>th</sup> of December. And if not everything gets 22 23 done, it might be just the first set put into 24 this format. Is that acceptable? 25 MS. MUNN: I would think so. There are only

1 so many hours in a day, and this third set 2 document appears to be extensive, so I think 3 your approach is quite acceptable. 4 MS. BEHLING: Okay, so I will take this 5 second set, and we will reformat using just 6 the minor changes that I made to John's 7 initial matrix. I will then look at the third 8 set to develop a matrix for the third set, and 9 then as the last item go back to the first set 10 and put that into this format. But the other 11 thing I will have done by then is the roll up. 12 I should be able to put everything into a roll up report. It's just that the first set, the 13 14 individual sheets I may not have done. 15 MS. MUNN: The roll up is really key to 16 being able to see what we have and what we 17 have yet in front of us. So, yes, your 18 approach is fine with me. 19 Any comments, one way or the other, 20 from other members of the Board? 21 DR. ZIEMER: It sounds fine. 22 DR. MAURO: And, Wanda, this is John. Just 23 a point to let everyone know. This should be 24 an interesting set because what we've done 25 here is beside the original 30 that we were

asked to review, during the course, while we were working that as you probably recall, we were reviewing a lot of new OTIBs that were coming out as part of the various site profile reviews that we were engaged in, especially Rocky, that really did not have a home.

7 In other words, the formal review and 8 documentation of a lot of the site specifics 9 were captured here. So what we're going to 10 have is something a little, we're going to 11 deal with something a little different than 12 we've dealt with and that includes not only 13 the standard set of 30 that are, approximately 14 30, that were originally authorized, but we also included a number of other reviews that 15 16 were done in another venue, namely as part of 17 the review of some of the closeout process 18 where SEC and site profile issues. So we're 19 going to see not only generic, but we're going 20 to see some site-specific because we felt it 21 was necessary to have a home for those site-22 specific reviews. 23 MS. MUNN: That appears to be the best way 24 to capture them, John. I don't know where

else would they go.

1

2

3

4

5

6

25

1 DR. MAURO: Yeah. That's why this is such a 2 large document. 3 MS. MUNN: Well, 45 is a lot, but we'll have to deal with it. So we'll do the best we can 4 5 ^ as much of it as possible for December. 6 RECAP OF ACTION ITEMS 7 The other item that I have listed for 8 us is to look at our calendars and make sure 9 that we're squared away with what we need 10 between now... I'm going to read you the 11 action items that I have. Help me if I am off 12 base. And, Chia-Chia, can you check your list 13 against mine? If there are additions or 14 subtractions, we can discuss that offline. 15 MS. CHANG: Yes, I think your list will 16 probably be ^. 17 MS. MUNN: But let's see what we have here. 18 I have action items: 19 SC&A will complete the roll up and 20 tracking matrix in the new format ^ possible by December 11<sup>th</sup>. 21 22 NIOSH will report on where we are with 23 global issues. 24 MS. CHANG: Yes. 25 MS. MUNN: We will continue responses to ^

1 reword OTIB-0018. ^ to be forwarded to us. 2 Responses will be available before December  $11^{th}$ . 3 ^ OTIB-0017 will incorporate PROC-0090 4 5 reforms^. 6 NIOSH will respond to SC&A's matrix PROC-0092. This response -- NIOSH will 7 8 communicate with SC&A and will respond to 9 issues raised in the OTIB-0012 white paper. 10 Key issues will be captured on the matrix. 11 Carryover of OTIB-0017-06. This was 12 not addressed. ^ of OTIB-0023, ^ issue paper on 13 oronasal ^ to accommodate OTIB-0004-02. 14 15 NIOSH will augment their response to 16 OTIB-000<sup>^</sup>. 17 Are there any items that I missed? 18 (no response) 19 MS. MUNN: Are you there, Chia-Chia? 20 DR. ZIEMER: We lose her? 21 MS. MUNN: We lost her. 22 DR. ZIEMER: Kathy, are you there yet? 23 MR. HINNEFELD: Yeah, I'm here. 24 DR. MAURO: I'm still here. It's John. 25 MS. BEHLING: This Kathy. I'm still here.

1	I don't have any other items. I'm sorry. I
2	thought you were waiting on someone else.
3	MS. MUNN: I was. I was waiting for Chia-
4	Chia.
5	MR. HINNEFELD: This is Wanda, the last
6	action item you had, was that 25-1?
7	MS. MUNN: Yes.
8	MS. CHANG: I'm sorry. This is Chia-Chia.
9	I was pushing the speaker phone button and
10	hung up instead. I was pushing the mute
11	button and pushed the speaker phone button
12	instead and hung up.
13	That was it.
14	MS. MUNN: I will get this into final shape
15	and get it out to you within the next few
16	days. I'm anticipating that our face-to-face
17	meeting in Cincinnati will start at 9:30 in
18	the morning. ^ I hope so.
19	DR. ZIEMER: What date is that?
20	MS. MUNN: In the interim the work group
21	members should please take time to review this
22	document.
23	DR. ZIEMER: Are we still on December 11 <sup>th</sup> ?
24	MS. MUNN: We're still on December 11 <sup>th</sup> .
25	DR. ZIEMER: Okay, just wanted to double

1	check.
2	MS. MUNN: 9:30 a.m. Hopefully, with any
3	luck at all, at the Marriott.
4	Anything else for the good of the
5	order?
6	DR. ZIEMER: Thank you, Wanda.
7	MS. MUNN: Thank you all. We appreciate
8	your efforts. We'll see you in Cincinnati.
9	(Whereupon, the working group meeting was
10	adjourned at 2:50 p.m.)
11	
12	

## 1 CERTIFICATE OF COURT REPORTER

STATE OF GEORGIA

COUNTY OF FULTON

I, Steven Ray Green, Certified Merit Court Reporter, do hereby certify that I reported the above and foregoing on the day of Nov. 7, 2007; 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 14th day of March, 2008.

STEVEN RAY GREEN, CCR, CVR-CM CERTIFIED MERIT COURT REPORTER CERTIFICATE NUMBER: A-2102