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 in Hebron, Kentucky, on May 20, 2008.

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

	2
<u>C O N T E N T S</u> May 20, 2008	
OPENING REMARKS DR. CHRISTINE BRANCHE, DFO	б
INTRODUCTION BY CHAIR MS. WANDA MUNN, ABRWH	10
SUMMARY STATUS AND FUTURE TRACKING EXPECTATIONS MS. NANCY ADAMS, NIOSH	11
ACCESS DATABASE ISSUES AND STATUS NIOSH	43
DRAFT OF SECRETARY TRANSMITTAL FOR SC&A FIRST SET REPORT ALL	50
DISCUSSION OF PROCEDURE TRACKING DATABASE EXCHANGE HINNEFELD, MARSCHKE	60
TBD-6000/6001 AND RESOLUTION MATRIX FOR APP BB SC&A	100
DISCUSSION ON OPEN, OPEN/IN PROGRESS, IN ABEYANCE AND CLOSED NIOSH	194
ANTICIPATED FUTURE APPROACH FOR PRIORITIZING ATTENTION TO ACTIVE ITEMS	227
FINDINGS ON CATI PROCEDURES FROM 1 ST SET OF REVIEWS NIOSH/SCA	254
HOUSEKEEPING; ACTIONS; NEXT MEETING	267
COURT REPORTER'S CERTIFICATE	275

TRANSCRIPT LEGEND

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-- "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.

-- "^" denotes telephonic interruption.

PARTICIPANTS

(By Group, in Alphabetical Order)

DESIGNATED FEDERAL OFFICIAL BRANCHE, Christine, Ph.D. Principal Associate Director National Institute for Occupational Safety and Health Centers for Disease Control and Prevention Washington, D.C.

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

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

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

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

IDENTIFIED PARTICIPANTS

ADAMS, NANCY, NIOSH ANIGSTEIN, BOB, SC&A BEHLING, KATHY, SC&A BURGOS, ZAIDA, NIOSH ELLIOTT, LARRY, OCAS/NIOSH HINNEFELD, STUART, NIOSH HOWELL, EMILY, HHS KOTSCH, JEFF, DOL MARSCHKE, STEVE, SC&A MAURO, JOHN, SC&A MCKEEL, DAN RAMSPOTT, JOHN SIEBERT, SCOTT, ORAU STEPHAN, ROBERT, SEN. OBAMA THOMAS, ELYSE, ORAU

1	PROCEEDINGS
2	MAY 20, 2008
2	(9:30 a.m.)
3	
4	OPENING REMARKS
	DR. BRANCHE: Good morning. My name is Dr.
6	Christine Branche. I'm with the National
7	Institute for Occupational Safety and Health
8	and functioning as the Designated Federal
9	Official, also known as Executive Secretary,
10	today. This is the Procedures working group
11	of the Advisory Board on Radiation and Worker
12	Health.
13	Ms. Munn, are you ready?
14	MS. MUNN: Yes, I am.
15	Welcome to everyone here and to our
16	folks who are joining us by telephone.
17	DR. BRANCHE: I wasn't quite finished,
18	Wanda. I'm sorry, forgive me.
19	Would the Board members who are in the
20	room please announce your names?
21	MS. MUNN: Wanda Munn, Chair.
22	MR. GIBSON: Mike Gibson.
23	MR. PRESLEY: Robert Presley.
24	DR. BRANCHE: Are there any Board members
25	participating by phone? Please announce your

1 names. 2 (no response) 3 DR. BRANCHE: Dr. Ziemer? 4 (no response) 5 **DR. BRANCHE:** Mr. Griffon? 6 (no response) 7 DR. BRANCHE: Can anyone on the line hear 8 me? 9 UNIDENTIFIED SPEAKER (by Telephone): Yeah, 10 we're on here. 11 DR. BRANCHE: Okay, thank you. 12 I'll go back to the Board members. 13 NIOSH staff who are in the room would you 14 please announce your names? 15 MR. ELLIOTT: Larry Elliott, NIOSH/OCAS. 16 MR. HINNEFELD: Stu Hinnefeld, NIOSH/OCAS. 17 MS. HOWELL: Emily Howell, HHS. 18 MS. ADAMS: Nancy Adams. 19 DR. BRANCHE: Any NIOSH staff participating 20 by phone, would you please announce your 21 names? 22 DR. ZIEMER (by Telephone): Paul Ziemer 23 here. 24 DR. BRANCHE: Oh, Dr. Ziemer, glad you were 25 able to join us, thank you.

1	DR. ZIEMER (by Telephone): Good morning.
2	DR. BRANCHE: NIOSH staff by phone would you
3	please announce your names?
4	DR. MCKEEL: This is Dan McKeel.
5	DR. BRANCHE: Dr. McKeel, thank you for
6	joining us.
7	Are there any NIOSH staff
8	MS. BURGOS (by Telephone): Zaida Burgos.
9	DR. BRANCHE: Thank you.
10	ORAU staff participating who are in
11	the room, please announce your names.
12	MS. THOMAS: Elyse Thomas.
13	DR. BRANCHE: ORAU staff participating by
14	phone, would you please announce your names?
15	MR. SIEBERT (by Telephone): Scott Siebert.
16	DR. BRANCHE: SC&A staff who are in the
17	room, would you please announce your names?
18	DR. MAURO: John Mauro, SC&A.
19	MR. MARSCHKE: Steve Marschke.
20	DR. ANIGSTEIN: Bob Anigstein, SC&A.
21	DR. BRANCHE: SC&A staff participating by
22	phone, would you please announce your names?
23	(no response)
24	DR. BRANCHE: Other federal agency staff
25	would you please announce your names at this

1	time?
2	MR. KOTSCH: Jeff Kotsch, Department of
3	Labor.
4	DR. BRANCHE: Are there petitioners or their
5	representatives on the line who would like to
6	announce their names?
7	MR. RAMSPOTT: John Ramspott.
8	DR. MCKEEL: This is Dan McKeel. I'm a
9	petitioner for GSI.
10	DR. BRANCHE: Thank you.
11	Are there any workers or their
12	representatives who would like to announce
13	their names?
14	(no response)
15	DR. BRANCHE: Are there any members of
16	Congress or their representatives who would
17	like to announce their names?
18	(no response)
19	DR. BRANCHE: Are there any others who are
20	participating by phone who would like to tell
21	us your names?
22	(no response)
23	DR. BRANCHE: Thank you very much. Just
24	before I hand it over to Ms. Munn I do ask
25	that those of you who are participating by

1phone, if you could please mute your2If you do not have a mute button, the	
2 If you do not have a mute button, the	en please
3 the star-six key to mute your phones.	When
4 you are ready to speak, then we ask t	hat you
5 use star six to unmute your phone.	
6 It is important that all of y	rou
7 participating by phone mute your line	s because
8 it does inhibit the quality of the li	ne and
9 the ability of the participants by ph	one to
10 hear if you have not muted your phone	e. I
11 think you'd be surprised how much bac	kground
12 noise is picked up. For those of us	who are
13 in the room if you could please mute	or
14 silence your cell phones we would ver	y much
15 appreciate that. Thank you very much	l .
16 Ms. Munn.	
17 INTRODUCTION BY CHAIR	
18 MS. MUNN: Welcome to all of you.	I′m
19 assuming that all of you who need a c	opy of
20 our agenda, have it. Does anyone nee	ed an
21 agenda who does not have one in hand	or on
22 screen? We have a couple here.	
23 As you all know we have a pre	tty full
24 basket today. We're going to try to	get
25 through all of it if we possibly can.	Even

1 with this kind of load we still have 2 additional material that we're working with 3 that we do not even have listed here. So 4 we're going to have to keep our head down and 5 keep rolling. But I don't want to short-6 change any of the discussions that need to 7 take place. 8 A number of things that we have on the 9 agenda are going to require a significant 10 amount of discussion around this table and 11 with our Board members who are on line. So 12 please be prepared to step in with any 13 additional information that needs to be 14 addressed at this specific time forward. SUMMARY STATUS AND FUTURE TRACKING EXPECTATIONS 15 16 Having said that the first item that 17 we have on our agenda today is a brand new 18 one. As most of you know, Nancy Adams has 19 been waiting in the wings for an opportunity 20 to step in and give us the kind of hand that 21 we need to help coordinate some of the loose 22 ends that sort of dangle out at the edges 23 especially when we transfer activities from 24 one working group to another working group or 25 to and from the Subcommittee.

1 Nancy's first effort was one that I 2 appreciate very much. She's taken a look at 3 our existing database and has put together a 4 summation of the, pure numbers, that appear as 5 a result from that database. I think it helps 6 any time for us to be aware of where we are in 7 terms of the material that we have yet to do 8 and get a little reassurance from what we have 9 actually already closed. 10 Without further ado, Nancy, if you'd 11 like to provide us with your review of an 12 overview of the summary, where we are right 13 now, we'd certainly appreciate it. 14 MS. ADAMS: Thank you, Wanda. 15 I hope I have enough copies here, but 16 I want to pass this out. This is just a 17 little spreadsheet that I put together after 18 going through the database that SC&A developed 19 for this particular work group. 20 My thought process with this was to 21 try to look at how many records are in the 22 What's open. What's closed. database. And 23 to categorize things by the categories that 24 were already created and exist in the 25 database. So that's open, open-in progress,

in abeyance, addressed in finding, transferred and closed. And down at the bottom, as I understand it, these are the definitions of those titles or those statuses.

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MS. MUNN: We might take a moment to look at those and verify that the information that Nancy has here is in fact our understanding of what those terms mean. Because that's key to her breakdown of information here.

MS. ADAMS: So open would mean there's been no meeting discussion on the item on the finding. Open-in progress says that there's some meeting discussion has started, but there is more work that needs to be done on that finding. In abeyance means the finding has been addressed but resolution is that NIOSH will change the procedure. But it's my understanding from the Board's perspective that in abeyance is considered closed. Addressed in finding means that

there's multiple findings in a procedure, and all the findings are affected by a correction of the first. Transferred means that an issue came up, and it got -- and I guess there is some discussion about changing this

1 terminology to exported or imported because 2 that issue would go to some other work group 3 for resolution or development. And then 4 perhaps return or not return and get concluded 5 wherever it goes. 6 MS. MUNN: From memory only I believe we did 7 discuss that at our last meeting. Is that the 8 memory of others as well? 9 Steve? 10 MR. MARSCHKE: Well, I think we did discuss 11 it, yes, Wanda. But I also know that the 12 database program now has another class called 13 imported where there are currently no findings 14 under the imported class, but there's another class out there which is available for those 15 16 findings which are imported to the Procedures 17 working group from other working groups I 18 guess. So there is an additional status, if 19 you will, that a finding can have. 20 I did have some concern as to how to 21 use that term, imported, because really it 22 doesn't really give you much information as to 23 the status of whatever that finding is, 24 whether it was open or closed. But it is out 25 there, and it's in the database. And you can

set a finding as being imported. So we have basically, we have transferred means transferred out. Like you have a transfer here means more or less it's been transferred out of the Procedures working group. Imported means it's been transferred, it's been brought into the working group from another group.

MS. MUNN: So I was thinking of transferred as having subsets, imported and exported. And you're saying that your understanding now is that transferred means exported, and that we already have established the new category of imported.

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14MR. MARSCHKE: That's the way the database15is set up. Right now on the O drive I believe16you have these seven status classes to choose17from. We can always change that if we want to18change it. But, yes, there's a separate class19for imported in and a transferred out.

MS. MUNN: Transferred as you understand it now means exported.

MR. MARSCHKE: Exported to some place else meaning another working group or like a, I think one we always use as an example is the inhalation problem where a white paper is

1 going to be evolved which is going to really 2 address all the concerns. 3 MS. MUNN: So we don't have Kathy online 4 today, do we? 5 DR. BRANCHE: Ms. Behling, are you on the 6 line? 7 (no response) 8 MS. MUNN: No, so we're going to have to, I 9 guess it would be my preference that before we 10 make an absolute change to your notations 11 here, Nancy, perhaps we should check 12 specifically with Nancy (sic) and perhaps even 13 check with our own minutes to see what our 14 discussion was at the last time we went 15 through this. 16 Because clearly we have the sense of 17 what's going on, but it seems to me that 18 Steve's saying something a little bit 19 different than what I had in mind and possibly 20 transferred perhaps does need to be changed in 21 its terminology. But we'll, if Nancy, if you 22 would check with Kathy specifically on that so 23 that we could get an e-mail clarifying it? 24 MS. ADAMS: Sure. 25 MS. MUNN: I'd appreciate it.

1 MR. GRIFFON (by Telephone): Wanda, this is 2 Mark. 3 MS. MUNN: Hi, Mark. 4 MR. GRIFFON (by Telephone): I just wondered 5 how we have used -- I'm trying to pull the 6 database up right now, but the difference 7 between in abeyance versus closed. If I heard 8 Nancy correctly, we are interpreting in 9 abeyance as closed? I don't quite follow 10 that. 11 MS. ADAMS: From my discussion with Kathy, 12 in abeyance is kind of in a holding pattern. 13 But from the Board's decision-making status 14 it's closed. It's not closed in the database is how I understood it. 15 16 MR. MARSCHKE: The issues that the finding 17 raised, have been resolved. It's just that 18 they have not, the procedure or the document 19 that has not been changed to reflect that resolution at this particular time. That's 20 21 the category that goes into abeyance. 22 MS. MUNN: And our previous discussion was 23 this is one of the things that's hanging out 24 in leftfield that we do not currently have a 25 process for tracking, and that we were hoping

that would be one of Nancy's tasks. To follow the in abeyance activities to assure that closure actually comes about by way of documentation in the appropriate procedure that had been culled out.

6 DR. MAURO: As I understand it from our 7 previous meetings, once the working group 8 decides, yes, this particular issue is going 9 to be assigned a designation, in abeyance, 10 that's a very important step. Because it 11 means previous to that there has been 12 discussion, perhaps an exchange of white 13 papers, and we're sitting around the room, and 14 we all say, yes, we agree that the strategy as 15 proposed by NIOSH is scientifically valid, 16 claimant favorable.

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And therefore, at this point in time the only thing that remains is that, of course, at some point in the process, which is convenient to NIOSH as appropriate, that procedure, that OTIB, will be revised. Now I think what's left on the table really is up to the working group whether or not that is the end of the process as far as the working group goes because it may take some time before

1 NIOSH gets to that revision or maybe not. 2 But if the working group decides, no, 3 we're going to leave it open; we're going to 4 leave it in abeyance until we actually see the revised Rev. 2, Rev. 3 of the OTIB, give the 5 6 working group a chance to read it and see if, 7 in fact, it has been revised in accordance 8 with the white papers, any discussions, all of 9 which should be in the archive now on the 10 database, all of that history, and if so, 11 judged by the working group, perhaps with the 12 assistance of SC&A. At that point the working 13 group will say, okay, we believe that OTIB has been appropriately revised, and we now will 14 15 close. And then the working group will direct 16 SC&A and NIOSH to change that little box from 17 abeyance to closed. 18 That was the concept. The only thing 19 I'd like to put on the table is we may very 20 well find ourselves in a place where we have a 21 whole long list of in abeyances because it's a 22 long process to revise an OTIB. And whether 23 or not the working group wants to consider 24 that for all intents and purposes closed or 25 let's just leave it calling it that, in

1	abeyance, that's really your call, how you'd
2	like to manage that information.
3	MS. MUNN: Well, I'll invoke the Chair's
4	prerogative and say from my perspective, and
5	it's the one I hope we will follow, that we
6	will continue to view that in abeyance list as
7	a task that Nancy's going to undertake for us.
8	That she will track in abeyance as she has
9	tracked this summary of all procedures here
10	and will regularly provide for us as we need
11	it a track of where we are with in abeyance
12	procedures.
13	As closure comes to pass, she would be
14	the person who would be aware that the change
15	that has been awaited is now before us to see.
16	And with that step in mind my concern over the
17	thread that was hanging out there will be
18	resolved. If that's a process that seems
19	feasible to everyone here, then I would like
20	to suggest that we follow that.
21	Does that meet your concern, Mark?
22	MR. GRIFFON (by Telephone): Yeah, I guess I
23	just, I'm concerned that we use this term, in
24	abeyance, cautiously because, I mean, my
25	experience is that oftentimes we don't, we're

very generic in terms of what is going to be done to address a finding. And if you're very generic, how is one going to determine -- I mean, if we have a very specific thing in the resolution that says this is how we're going to resolve the problem in the future TIB, that's one thing. There I could say, fine, we don't need to see the result, the next version of the TIB.

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But if we have a response that NIOSH is going to address this in the rewrite of the TIB, that's a very different thing because we don't know how they're going to address it; and therefore, we don't know if it's technically adequate. So I think there's a fine line between open-in progress and in abeyance. As long as it's a definitive resolution in the work group, then I agree we don't have to wait to see the final reprinted version in the TIB. But I guess that would be my only concern. **MS. MUNN:** Nancy's tracking of the in

MS. MUNN: Nancy's tracking of the in abeyance can very easily identify what we're waiting for. What the in abeyance is. And that should make it easier for us on a regular

basis to see what we're waiting for and what progress is being made.

MS. ADAMS: That's absolutely correct assuming that whoever is putting data into -and please, bear with me here since I'm the new kid on the block -- that the data that's going into this database is coming from somewhere where the notes are being taken such that you can delineate what that exact issue So when you go back through the detail is. report, and you look at the recommendations from the work group, it just doesn't have a generic phrase in there that says NIOSH is going to fix this. DR. ZIEMER (by Telephone): Wanda?

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MS. MUNN: When you see that, that's part of the thing that goes on your list. I don't know what you're expecting here needs to be on the list. And that's our job then to make you aware of that.

21 MS. MUNN: Yes, was that you, Paul? 22 DR. ZIEMER (by Telephone): Yes, I just 23 wanted to indicate I share Mark's concerns. Ι 24 think if Nancy tracks this properly, we can 25 differentiate between those two cases. But

certainly we want to be able to periodically review the status of the in abeyance items and make sure that what is supposed to happen does happen.

MS. MUNN: I think we'll try that for next time, Nancy. And at that time you'll be able to identify any in abeyance items that do not have clear delineation as to what action is expected. If we try to make sure we get off to a good start with this particular tracking system, then perhaps it will just become second nature to us to make sure that it goes onto the archive record appropriately.

MR. MARSCHKE: Wanda?

MS. MUNN: Yes.

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16 MR. MARSCHKE: Right now the way actually 17 we've been operating the database is that we 18 do not really change, we don't make any 19 unilateral changes to the status box. 20 Everything basically, we wait for the Board's 21 okay before we make any changes to the status 22 And so in that case, I mean, everything box. 23 that is in abeyance we would have to wait for the Board, or not the Board but the working 24 25 group, to tell us that, okay, it meets our

1	standard; it meets the resolution before we
2	change it from in abeyance to closed.
3	MS. MUNN: That's my expectation, Steve. I
4	would expect that to continue.
5	MR. MARSCHKE: Yes, and so you will have, I
6	mean, the working group will have another shot
7	at looking at any resolutions that are
8	proposed for in abeyance findings to make sure
9	that you agree that they do, in fact, address
10	the finding, and the finding is, in fact,
11	closed.
12	MS. MUNN: I believe that philosophy was the
13	sense of the group at the time we set up the
14	database.
15	I'm sorry. Back to you, Nancy.
16	MS. ADAMS: So this spreadsheet basically
17	takes the six dates that findings were
18	submitted and then spreads out what the status
19	of those total findings are. So for the
20	findings that are dated the 17 th of January,
21	2005, according to the database there are a
22	total of 182 findings.
23	Currently, 29 of those are open, which
24	means according to this definition, that
25	there's been no meeting discussion on 29 of

1 those 182 findings. There are none in 2 progress. There are 54 in abeyance. One has 3 been transferred and 98 are closed. 4 MR. MARSCHKE: The 29 that are open are the 5 29 that were associated with PROC 4, 5 and 17, 6 and that got transferred to PROC-0090. So 7 it's a little bit, I don't know if they --8 let's see -- so right now all of the 29 are 9 all findings associated with PROC-0090, and 10 they all got transferred into PROC-0090 from 11 four, five and 17. Those were the ones that 12 were reviewed. 13 MS. MUNN: And we have cleared PROC-0090, 14 have we not? 15 MR. HINNEFELD: No. 16 DR. MAURO: No, it's an open item. 17 MS. MUNN: It's still an open item. 18 DR. MAURO: That's one of the CATI ones that 19 are on your agenda. 20 MR. HINNEFELD: Yeah, it's the CATI 21 procedure. 22 MS. MUNN: So what I think I'm hearing from 23 Steve is that we actually don't have 29 open 24 items. We have 29 exported items. 25 MS. ADAMS: What about PROC-0006, which is

open?

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MR. MARSCHKE: I didn't find PROC-0006. I didn't find a PROC-0006. I think it was four, five and 17.

DR. MAURO: In theory it should all be on the system. In other words right now the matrix is fully loaded, and it's all, in effect, what we're looking at is a boil-down of 400-and-something findings, sorted and boiled down so that we can get a bird's eye view. If there are any questions related to how we boiled it down, it should be on the matrix.

14I don't know whether or not we have15access to the matrix to see where six is. So16in theory if there are any questions about17whether or not this is a faithful18representation of what's in the big database19that's, you can always go back to the20database.

21 MS. MUNN: Right, and that's, I guess I 22 would ask that you make note of that item, 23 Nancy, and that you and Stu take a look at 24 that to see if it is appropriately an export 25 item rather than --

1 MR. HINNEFELD: It's not. There aren't any 2 on PROC-0006 from the January '05 review. 3 There aren't any on PROC-0006 that are open 4 according to the database. There's one in 5 abeyance. 6 MS. ADAMS: Maybe this item got changed with 7 that update. 8 MR. HINNEFELD: Well, when did you look? 9 Because this is about 11 days old. The ^ is 10 about 11 days old. As far as I know, nothing else has been added. This is after we added 11 12 the information I sent to you, and so as far 13 as I know, nothing's been added. Maybe it was 14 changed at that point. 15 MS. ADAMS: This report that I'm looking at 16 that's got the page on the PROC-0006 item is 17 from the old, the 3/10 update. 18 MR. HINNEFELD: Okay, it's been changed 19 since then. 20 MS. ADAMS: But then somebody has changed 21 the status of an item that occurred without 22 this Board or without this work group making 23 the change. 24 MR. HINNEFELD: Well, it could be an 25 incorrect initial assignment. It could be

they realized that they had picked the wrong button. Because I noticed on the agenda, this procedure has been reviewed again later. PROC-0006, Rev. 1 has also been reviewed. So I would not think that there'd be anything hanging out open for PROC-0006, Rev. 0 when PROC-0006, Rev. 1 has been reviewed as well.

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MS. THOMAS: Well, we can look at this. MS. ADAMS: Anyway so you go down for each of these items, each of the finding dates of what was submitted. You can see across the spreadsheet what the status of things are. So in total there's 238 items that are open or 51 percent of the findings. And 143 have been closed or 30 percent of the findings. And then you've got the 20 percent that's hanging in the middle.

18 MS. MUNN: From my perspective this is an 19 excellent overview and a good thing for us to be doing on a fairly regular basis. We've 20 21 identified about three things that need to be 22 worked out, little glitches that we need to 23 come to some closure on in order to begin to 24 put very much weight on the numbers as they 25 exist here. Hopefully, we'll be able to do

1	that without too much difficulty.
2	MS. ADAMS: In trying to become familiar
3	with this database there's a little piece of
4	information between the totals and the
5	definitions at the bottom that talks about
6	priority identified in the database. And this
7	was in the abeyance piece. It looks as though
8	during the submissions of the findings
9	associated with January 2005, there was some
10	attempt made to rank low, medium or high the
11	priority of those in abeyance items.
12	So where I could find it, that's what
13	that is. So these all only relate to January
14	17 th , but in that set there was only one
15	identified as a high priority, ten as medium
16	and 17 low. And then 39 of those 54 didn't
17	have any identification as to priority at all.
18	So I don't know if that's important,
19	unimportant, but it's just another piece of
20	information for you.
21	MS. MUNN: Thank you, Nancy. We felt that
22	it was important the reason being that there
23	was such a large number of findings there that
24	we felt it was necessary to prioritize what we
25	were going to be looking at, otherwise there

1 was no logical way to address them. If many 2 of the findings were of relatively low impact 3 and not likely to affect the outcome of any 4 cases that had been observed up to that time, 5 then we felt that it was a judicious use of 6 our time to address the large, more 7 contentious issues on a priority basis. 8 That's why you saw those ratings. 9 We have perhaps not been as effective 10 in a mechanical way in doing that with our 11 later activities, but as a practical matter we 12 have found it necessary to address more pressing items ahead of items that were deemed 13 14 to be more routine. So, yes, that is good 15 information and perhaps we may want to do a 16 better job of documenting our assessment of 17 those priorities for some of the later 18 datasets that we have as well. But for the 19 time being thank you for that. It is helpful 20 certainly. 21 MS. ADAMS: The two items that, based on my 22 review of the database that I think might be 23 advantageous from a tracking perspective that 24 currently aren't available, are there's no 25 closed date field in the database for each

1 item. So if you wanted to track over time, 2 you have to physically go back in the detail 3 report for every single record and see what the last meeting date was and determine if 4 5 it's closed. And that's a tremendous burden 6 when a computer could do that quickly for you 7 if you entered a closed date. 8 And the other that just became obvious 9 after the database was updated just a few days 10 ago is that there's no way to filter for what 11 items were updated. So again, you would have 12 to go back through, manually look at all of 13 the detail reports to see what was physically 14 updated in order to figure out what in the 15 database changed. So to be able to filter on 16 latest records updated would be extremely 17 beneficial. 18 MR. MARSCHKE: We can make those changes if 19 that's what the working group wants us to do. 20 We can implement those two. 21 MS. MUNN: Certainly the closed date would 22 seem to be a no brainer. 23 MR. MARSCHKE: What I would recommend on the 24 data is I would recommend that we put a date 25 associated with the status. Whatever the

1 status is whether it's open, closed or 2 whatever it is, we have a date associated with 3 that status which basically you can then look 4 at and see when that status was set. 5 DR. ZIEMER (by Telephone): Steven, is that 6 the most recent time the status changed? Is 7 that what you're saying? 8 MR. MARSCHKE: That's what I'm saying, yes. 9 DR. ZIEMER (by Telephone): Yeah, that makes 10 sense. 11 MS. MUNN: But don't we already have, we 12 already have, we date every entry on the 13 database. 14 MR. MARSCHKE: But we don't have it as a 15 separate field associated with the status so 16 you can't really sort on it. 17 MS. MUNN: Okay, so it's dated, but we don't 18 have it in a database field. 19 MR. MARSCHKE: Yeah, when we basically, like 20 when we had this working group meeting today, 21 if we talk about specific findings, we will go 22 and we will add a sub-record to each finding 23 and say, okay, we talked about this finding at 24 this date, and maybe we changed the status. 25 That will be kind of down in the discussion,

and John says the history of the finding and not, you won't be able to specifically sort on it when you're looking for when was these things closed.

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DR. MAURO: What I'm hearing is though the record itself, the big record itself, is embedded in, every meeting we have, in this meeting, whatever we talked about, whatever white papers, whatever direction we give, whatever decisions are made will be in there.

But what I'm hearing is, in other words there are certain parameters that we like to roll up on. For example, I'm hearing that you'd like to be able to, just like you rolled up on some of this, you'd like to roll and say, okay, what was the date when, for every item, which one was changed, the date of the most recent change.

19I guess that's what I'm hearing. We20have 400-and-something findings all together,21we roll them all up in that order. And what22I'm hearing is you'd like to know out of the23400 findings, in other words you could have24the status of each and every finding if you25wanted that, but what I'm hearing is you'd

1	like to have another column in the roll-up
2	sort of the date when that particular finding
3	was changed from its previous status to its
4	current status. Is that what I'm hearing?
5	MS. MUNN: I believe that's true.
6	Stu?
7	MR. HINNEFELD: For utility I would offer
8	that rather than a status change date, you'd
9	want the latest entry date. Because, for
10	instance, we would write an initial response.
11	When there's a finding and we've not written
12	an initial response, we write an initial
13	response and put it in the database. Then
14	find that, well, we could notify everybody new
15	information has been added to this finding in
16	the details page. I mean, that's one way. Or
17	if you had a date updated, you, people from
18	members of your staff, could look for what's
19	been changed in the last week, has NIOSH put
20	anything in the last week. Similarly, if you
21	entered additional information, for instance,
22	we provide an initial response. We have a
23	meeting. You say, well, what about this. You
24	provide additional information on some date.
25	Then we could then see, if we knew the date

1 entered, we could see, okay, you have added 2 additional information and start working on 3 that. So to me the status date we can 4 certainly capture and do that, but that won't 5 complete -- what Nancy said to me was 6 difficult because I've not really looked that 7 much, the difficulty being if you've got an 8 old version and a new version, how do you know what's changed? How do you know what's 9 10 changed over time? So I think the date of 11 entry kind of thing would be better. 12 MR. MARSCHKE: Well, the last change date is 13 in there. 14 MR. HINNEFELD: It's in the database. 15 MR. MARSCHKE: You just can't sort on it. 16 So basically you keep, but you don't know what 17 changed on that. You know that the record, 18 the information on that finding has changed. 19 You don't know what specifically was changed, 20 that's true. But you can go and look then you 21 see --MR. HINNEFELD: It allows you a limited 22 23 number of findings. If I'm going to see do I 24 have something that updated I should respond 25 to, read and consider whatever it is what my

1 action would be. It allows you then to be 2 able to find them electronically. The other 3 option would be for us to religiously, when 4 something is entered, notify the work group 5 members and then each person notified would 6 need to keep a record of the notifications 7 they received so when they get time to look, 8 they'd be able to look. Either way you've 9 kind of got to keep a record of when you look 10 at the database. Even if you have the latest 11 update dates, you have to keep a record of 12 when you look so you know what to look back to, what dates to look back to when you look 13 14 at the change. 15 I ask that DR. BRANCHE: Excuse me. 16 whoever, the people on the line would you 17 please mute your phones? Thank you. 18 MS. BEHLING (by Telephone): This is Kathy 19 Behling. I joined you. 20 John, I'm on the line. I apologize. 21 I'm on the phone in the car. I don't know if 22 I can contribute anything or not. 23 DR. MAURO: Kathy, thanks for joining in. 24 I'm glad that you're able to join us. 25 MS. MUNN: And we're sure you can

1 contribute. There's no question. I think --2 I'm repeating what John said earlier. Ι 3 believe that what I'm hearing is the 4 information that we need is in the database. 5 It is just not there in a method whereby we 6 can sort on it. 7 MR. HINNEFELD: I believe that's the case. 8 MS. MUNN: Because I know we were very clear 9 at the time we were asking that this be set 10 And I know Kathy was very perceptive in up. 11 suggesting from the outset that everything 12 that goes in has a date attached to it so that 13 we would know when this occurred. So I know 14 that the date's there, but what we're hearing 15 is we can't sort by it. 16 And not being a database manager and 17 software being a long way from my strong suit, 18 there's no way that I can identify how complex 19 that might be. 20 Kathy, can you help us? 21 MS. BEHLING (by Telephone): I'm sorry. I'm 22 not hearing very well, but I assume it has to 23 do with the fact that you're trying to ensure 24 that you know the date when everything has 25 been entered?

MS. MUNN: No, we're trying to make sure that we can sort. Two things, we need to be able to sort, we need to see the date that closure occurred, and we need to be able to sort on the date, on the most recent date of changes to each of the outstanding items. MS. BEHLING (by Telephone): Okay. Well, currently in the filter screen there is a field that says updated on. And this may not

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field that says updated on. And this may not be as precise as you want it to be, but let's say we put in January 1st, 2008. Everything that was changed from that date on, those records will show up when you hit enter on that filter screen. But it sounds like you want something a little bit more precise than that.

17 DR. MAURO: Let me jump in. I think we're at a good place. Let me explain how I see 18 19 this. Where we are is that we created a 20 database that contains all the information we 21 want. The problem is it's big. It's hundreds 22 and hundreds of pages and everything is in 23 there. And really the service it provides is 24 a great archive. 25 But now we've got to make it

1 functional so that when we sit around the 2 table like this and someone says, okay, when 3 was the last time, let's get a listing of the 4 last time every one of our findings have been 5 updated. In other words we want to pose 6 questions to it so that what we're really 7 asking now is almost like metadata. That is, 8 all the data's there, but we want the 9 wherewithal to be able to pull out --10 MS. BEHLING (by Telephone): Okay. 11 DR. MAURO: And one of the things that 12 became apparent was that it will be really 13 nice to say we have to go in and say for any 14 given procedure, for any given item that has 15 been, let's say, changed, that is new 16 information was added --17 MS. BEHLING (by Telephone): Okay. 18 DR. MAURO: -- we'd like to know the last 19 date that that issue was changed or the 20 database was changed. 21 MS. BEHLING (by Telephone): I believe that 22 we have everything in place to be able to do 23 that because I know we have a date associated, as Wanda just said earlier, we have a date 24 25 associated with everything. If there's an

SC&A update, there's a date that says that was updated. So we just have to be able to sort on that and add that as a sort into our filter screen. So that's not a problem. I believe everything exists, everything in the database is already there and exists. It's just adding 7 some filtering to our filter screen. MS. MUNN: You just confirmed what I believed to be the case, Kathy. That's good. 10 If we can in fact do that, then we're in good shape. DR. MAURO: In fact, where we are is as we work with the database and have meetings such 14 as this, and the work group says, geez, it would be really nice if we could do this. You 16 just let us know what it is, and the next day it will be done. 18 MS. BEHLING (by Telephone): And I don't 19 think it will be any major changes because I 20 think everything already exists. We simply have to put something in to sort on it. 22 That's easy. 23 MS. MUNN: Good. If we can see that that gets done, I think the general consensus here is we need to do that.

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1 MS. BEHLING (by Telephone): Okay. The only 2 other thing that I believe Nancy Adams has 3 requested, and I think this is a very good 4 request, is once an item is closed, let's have 5 a closed date. And so I don't know if you've 6 had any discussion on this, but I think that 7 might be a field that we need to add and that 8 is a good field that doesn't currently exist. 9 And we can easily do that also. 10 MS. MUNN: That's where we started, and 11 that's what we want to have happen. 12 MS. BEHLING (by Telephone): Okay. 13 MS. MUNN: Thank you very much. 14 MS. BEHLING (by Telephone): Okay, very 15 good. I'm going to hang up here. 16 MS. MUNN: One other thing before you go, 17 Kathy. We discussed the issue of transferred 18 classification and whether or not we were 19 going to have input and outgo in the same 20 category or whether we were going to have 21 imported as one classification and exported as 22 a second classification rather than 23 transferred. Do you have any feelings about 24 that? 25 MS. BEHLING (by Telephone): Well, Don

1 Loomis and I have talked about that a little 2 bit too, and we have it transferred now 3 because a lot of what we do with Task Three is 4 simply transferring within Task Three to like 5 global issues and that type of thing. But we 6 had also talked about saying exported to, so 7 we know when new databases are created where 8 it's going to go to. 9 And we can certainly think about that 10 and maybe make an additional, and export, and 11 transferred means when it's transferred within 12 that database, we'll use the word transferred. 13 And if it goes out of the database, we can use 14 the word exported possibly. That's something you may want to consider. 15 16 MS. MUNN: Well, we've asked Nancy and Stu 17 to take a look at that and think about it a 18 little bit as well. So perhaps the three of 19 you might be involved in an offline discussion 20 and make some decisions as to how you think 21 that might best operate, as long as we have a clear delineation of the difference somehow 22 23 that we can sort on the difference between 24 imports and exports --25 MS. BEHLING (by Telephone): Okay, very

1 good. 2 MS. MUNN: -- the broader issue. 3 MS. BEHLING (by Telephone): All right. 4 I'll hang up here since I'm driving. 5 MS. MUNN: Thank you so much. 6 Are we okay, Nancy? 7 MS. ADAMS: I believe so. 8 MS. MUNN: I think we have the only real issues that we have had identified so far we 9 10 covered. 11 ACCESS DATABASE ISSUES AND STATUS 12 If we're happy with that, let's go on 13 to the concerns that we were having with 14 respect to the ACCESS software and where we're 15 going with that. 16 MR. HINNEFELD: Our concern with ACCESS is 17 that it works well when everybody's using the 18 same computer system, and it will support 19 local users on the same system. But because 20 of computer security issues, we at ORAU do not 21 use the same computer system. There's a 22 firewall between and data gets replicated back 23 and forth routinely as we need, you know, the 24 information that we want to share with each 25 other gets replicated back and forth

routinely.

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2 So because of that the ACCESS database 3 version that we see is replicated over our 4 side, it's very important that we not write to 5 it because if we tried to do that, it would 6 write over or corrupt other information. It 7 could do it on the other side. So when it 8 comes over to our side, we only see, we get a 9 read-only. And we can sort. We can do all 10 that stuff, but we can read-only. 11 Our technical support team folks said, 12 listen, we can change this and put it on a SQL 13 engine, which is a different database language 14 that Don Loomis is very familiar with. If we 15 put it on a SQL platform, SQL will take care 16 of it and will allow all updates to come from 17 multiple locations and write back. And this 18 is what my TFD guy told me. I don't know any 19 better. 20 So what we would like to do is to put 21 this database in a SQL format, and in fact, we 22 have a document review application that we 23 think is malleable or can be made to look a 24 lot like this and serve this function. Ιt 25 would allow us to write directly so we could

make our entries directly into the database as well as anybody who has rights, writes on the ORAU side or at SC&A or Board members.

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Anybody with write authority could then write to it from their own system. This latest round when we sent updates to be added, we sent them over to Steve, and Steve put them in the database for us. That's how our information got added. We can do that but it gets pretty cumbersome, especially if we start expanding this to more and more databases.

More and more if we get other work groups using this, if we have global issues database and things like that, it will really, really get difficult to keep track. So our view is that it's preferable to have the additional databases built in SQL, change this one to SQL and have it essentially look and act the same and proceed at pace with that.

Now, our technical support team is in conversation with Don Loomis at SC&A. I think Don knows SQL really well and thinks, okay, he's willing to go along and do his part in that. And he had just today, I guess, or last night had shared with Don what we had so far

1 on our document, the way our document review 2 database looks now so that he can, but we know 3 there are additional things that have to be 4 done in order to accommodate this. 5 Because right now it's been for our 6 internal stuff, and we would intend to 7 continue to use it for our internal documents, 8 like the ORAU documents, so that's stuff that 9 never really gets published. But if we can 10 use the same system, the same engine and just 11 have certain parts that are broadly available 12 to the Board and SC&A on the O drive on the ORAU system and that we could use as well. 13 14 So that's our intent or that is our 15 hope. And I know that Don Loomis at SC&A and 16 Leroy Turner on our staff are in conversation 17 about seeing what we can do about getting this 18 done. The first item would be a SQL version 19 of this database so essentially it looks the 20 same and does the same. That would be the 21 first step. 22 MS. MUNN: Is there any barrier either 23 procedural or legal that is in the way of our 24 making that change? 25 MR. HINNEFELD: I don't believe so. I guess

1	Don, if he's familiar with SQL, there must be
2	a license for it on the SC&A side. Our
3	license covers all the other users. So I
4	don't know what other barrier could possibly
5	be. And if you don't have a license I guess
6	it would be a reimbursable expense.
7	DR. MAURO: It makes sense that this
8	becomes, if this is going to become
9	institutionalized across the board, it should
10	be a NIOSH server product whereby through
11	NIOSH and its controls contractors, whether
12	it's SC&A or some future contractor, can also
13	learn, access it in accordance with
14	appropriate protocols loaded.
15	MS. MUNN: Absolutely.
16	DR. MAURO: So this should not be SC&A's.
17	MS. MUNN: No.
18	DR. MAURO: We have to move this out, and it
19	should be NIOSH's. And I have no doubt in my
20	mind, just like we have access to the O drive,
21	and we can download information. This will be
22	a little different because now we'd actually
23	be writing to some dataset within your system.
24	But I believe you'd probably have to control
25	it so that we are limited only to that

function within the system. This is the way it has to go.

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MR. ELLIOTT: Thank you, John, I echo your comments. And I would also add to them that as each of the other working groups evaluates the utility of this database you created for your working group, Leroy Turner and our technical support team can modify in SQL the application for a given work group to their desires. So I think that's an important valuable aspect of NIOSH taking this over. Because you're going to have, I suspect, several working groups wanting to avail themselves of this system, what they've done.

MS. MUNN: I anticipate that's in the wings very shortly.

17 MR. ELLIOTT: And at some point in time as 18 we, in our IT security efforts within the 19 government become, we have to undergo 20 certification and accreditation of all of our 21 systems, and it's best if we use one platform, 22 one software platform system. 23 MS. MUNN: Paul, Mark, do either of you have 24 any comment in that regard? 25 DR. ZIEMER (by Telephone): This is Ziemer.

1	I think it makes sense, and I think that's the
2	direction we should go.
3	MR. GRIFFON (by Telephone): Yeah, I agree.
4	It makes sense.
5	Hey, Wanda, another question. I'm
6	looking on the O drive for this database, the
7	existing one. Can you help me out where it's
8	located?
9	MS. MUNN: I can't, perhaps Stu can.
10	MR. HINNEFELD: Is there an SCA Advisory
11	Board Review folder?
12	MS. ADAMS: The first folder, I think, is
13	the AB Document Review folder, and then the
14	second folder is SC&A Advisory Board. So you
15	click on that one, and then it'll say and
16	again, I'm just going from memory here but
17	I think it says SC&A Tracking Database.
18	MR. GRIFFON (by Telephone): Okay, I'm
19	getting a no access allowed to the SC&A
20	Advisory Board folder, that subfolder, for
21	some reason.
22	MR. HINNEFELD: Well, I'll see if I can get
23	it fixed today.
24	MR. GRIFFON (by Telephone): Yeah, all
25	right, thanks.

1 MS. MUNN: It sounds to me as though there's 2 consensus and doesn't seem to be any real 3 reason not to continue with the S-Q-L platform 4 for operating this database in the future. 5 Let's do it. Anything else in that regard? 6 (no response) DRAFT OF SECRETARY TRANSMITTAL FOR 7 SC&A FIRST SET REPORT 8 MS. MUNN: If not, let's move to the next 9 Procedures agenda item, which is the 10 transmittal letter to the Secretary. I'm 11 assuming that everybody is quite happy with 12 the 20-page report that we've been trying for 13 the last month and a half to get transmitted 14 to the Secretary, and that there's no problem 15 with that. So what you have before you is my 16 suggested transmittal, which I sent to you day 17 before yesterday. 18 DR. BRANCHE: It's just one page, not 20, 19 right? 20 MS. MUNN: It's just one page. My 21 transmittal is one page. The SC&A report is -22 - I'm just thumbing through my paper here. I 23 love to thumb through paper, but does anyone 24 have any concerns with that? I have not 25 received any comments or corrections. Is that

1	letter effectually saying what you feel needs
2	to be done to transmit that report?
3	DR. ZIEMER (by Telephone): Wanda, can you
4	hear me? Am I on mute?
5	DR. BRANCHE: No, we can hear you, John.
6	MS. MUNN: No, we can hear you, Paul.
7	DR. ZIEMER (by Telephone): I just got it
8	late yesterday so I didn't respond. What I
9	would like to do is add a sentence I think at
10	the beginning of the second paragraph, just
11	before you say in order to assure completeness
12	and scientific validity. I would like to add
13	the sentence, which is basically from the Act
14	itself that charges the Board with the
15	responsibility of scientific validity of the
16	work so that this basically is clear that
17	that's why we're doing this.
18	MS. MUNN: Sounds like a good idea.
19	DR. ZIEMER (by Telephone): If you would
20	agree as a friendly amendment that we add a
21	sentence which delineates the Board's
22	responsibility for assuring scientific
23	validity in the program. And then we'd say in
24	order to assure completeness, scientific
25	validity of procedures being used that we do

1 this. And also the only other point there we 2 may want to say procedures used by NIOSH and 3 its contractors or contractor. 4 MS. MUNN: May I request that you send me 5 both those items, or if there are more, that you send them to be my e-mail? So that I can 6 7 incorporate it into the text of what we have. 8 DR. ZIEMER (by Telephone): And actually, I 9 don't know if I, since I'm in a remote 10 location and don't have access to my files, 11 I'm not even sure I, I'll see if I can pull 12 this material from what I have with me. 13 MS. MUNN: I don't think there's any reason 14 for us to rush with this, Paul, as long as we 15 know what your concerns are and what the 16 additions are that you would like to make. 17 DR. ZIEMER (by Telephone): Well, I'll be 18 back home at the end of the week. 19 MS. MUNN: The end of the week, certainly, I don't think anyone on this group is going to 20 21 be concerned with that. In any case it's my 22 understanding that we have to have the full 23 Board's approval before this can go out. And 24 if that is the case, then we certainly need to 25 get anything that we're going to propose out

1	to the full Board within the next couple of
2	weeks so that they have plenty of opportunity
3	to raise any concerns they might have before
4	the full Board meeting. But I think we're
5	going to have to wait for the full Board to
6	get final approval to send anyway.
7	MR. GRIFFON (by Telephone): Wanda?
8	MS. MUNN: Yes.
9	MR. GRIFFON (by Telephone): One small
10	comment on the fourth paragraph. It says,
11	"After the Board's selection of a third
12	procedure," I think you mean a third set of
13	procedures
14	MS. MUNN: Yes.
15	MR. GRIFFON (by Telephone): for review,
16	right?
17	MS. MUNN: Yes, I do.
18	MR. GRIFFON (by Telephone): Instead of a
19	third procedure.
20	MS. MUNN: Yes, I'll make that change right
21	now.
22	MR. GRIFFON (by Telephone): So I just
23	reworded that a little bit, third set of
24	MS. MUNN: Set of procedures
25	MR. GRIFFON (by Telephone): procedures

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for review.

MS. MUNN: After the Board's selection of the third set of procedures, it was observed, et cetera.

MR. GRIFFON (by Telephone): Yeah.

MS. MUNN: Okay, got it.

MR. GRIFFON (by Telephone): And then the attached 20-page report, do you know when --I'm sure I have that, but can you tell me when that was sent to us?

11 MS. MUNN: Yes, I certainly will. It was sent out on the 30th of March. And actually, 12 it was handed out, a printed version of it was 13 14 handed out to everybody at the last full Board 15 meeting. So a hard copy was in-hand for 16 everybody. If you'd like me to re-send that 17 to you, I'll be glad to do that. 18 MR. GRIFFON (by Telephone): If I don't find

it, I'll let you know.

MS. MUNN: Good. Do.

21 Any other comments, additions,
22 subtractions, concerns?
23 (no response)

MS. MUNN: If not, I will await e-mail from folks to make comments to make sure that we

1	have your suggestions in writing. I'll
2	incorporate them, send them back out again to
3	this working group for any final thoughts.
4	And barring none, I will see that the letter
5	is forwarded to the entire Board so that we
6	can ask for it to be an agenda item on our
7	next full Board meeting.
8	Any other concerns with regard to that
9	letter and that transmittal?
10	(no response)
11	MS. MUNN: If not, it's time for our break.
12	We're right on time. We will take a 15-minute
13	break.
14	Hold on just a moment. John?
15	DR. MAURO: Before we break, a real quick
16	question. There is this roll up table that
17	Nancy prepared. One of the things we didn't
18	talk about is this is probably something you'd
19	like to have automated. In other words,
20	Nancy, I guess you had to work real hard to
21	extract this information? Was it easy to pull
22	together?
23	MS. ADAMS: It wasn't so bad.
24	DR. BRANCHE: She's being nice. She had to
25	put some time into it.

1 DR. MAURO: All I'm saying is if the working 2 group feels that there's a certain cadre to 3 kicking off a meeting like this, we'd like to 4 get a bird's eye view of where we are, and it 5 may be a single page like this that will help 6 us understand where we are at this point in 7 time. My guess is you can just automate it 8 and just hit it and out it comes. 9 DR. ANIGSTEIN: Don Loomis can program 10 anything. 11 I know, I'm saying --DR. MAURO: 12 DR. ANIGSTEIN: So what I'm saying is he 13 would need to write some kind of a program or 14 routine into that, and you just hit a button, and it would come out. 15 16 DR. MAURO: Right. I've seen Don do this. 17 The only reason I bring this up is that if it 18 turns out we want to really get into, let's 19 say, a process, an automated process, and we 20 all agree this is the way to get through this 21 thing, if there's a form that you'd like to 22 generate prior to every meeting so that we 23 could all have a bird's eye view of where we 24 are, you just let us know what you would like 25 that form to look like, such as this one, and

we could have that prepared in no time and have it available. My guess is to get to this it may not be as, I know I would have to take a lot of time to do this. I'd have to work my way through it. You could sort on the first set, the second set, the third set. You could roll them all up. In other words whatever the working group feels would be a nice way to roll things up so that we could all start from the same corner, my guess is it's pretty easy. I'm talking about less than a day's work to write.

13 MR. ELLIOTT: I think here again, we would 14 say that NIOSH should make that kind of a user 15 need change. There's a series of reports 16 functions that could be added to the program 17 that our folks have off the shelf. So if this is the kind of report you want automatically 18 19 spun out at your beck and call, that could be 20 accommodated. 21

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DR. BRANCHE: This is Christine. The only thing I would caution is that part of what Nancy's trying to accomplish is some uniformity across the work groups. So while this suggestion is a good one, I would just offer that if, once Nancy has a better sense of, or has been able to accomplish some unanimity across the work groups so that whoever is going to spit out, can spit it out. We're not doing 17 different versions. So I just want to caution that that's what Nancy's trying to accomplish.

8 DR. MAURO: Passing the baton to what Larry 9 said is very important. It looks like we're 10 real close. In other words instead of going 11 Don Loomis, it's over at NIOSH. And really, 12 we're there in the background to be part of 13 the functional team working with everyone, but 14 the driver from then on in terms of software 15 development and Board preparation, that will 16 all be NIOSH. 17 MR. GRIFFON (by Telephone): And Wanda, 18 before you take your break, can you e-mail me 19 that report? I can't seem to find it on March 30^{th} . 20

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21 MS. MUNN: I'll send it to you right away,
22 Mark.

MR. GRIFFON (by Telephone): Thank you. MS. MUNN: You're most welcome. And yes, I believe it was the intent

1 of the working group from the outset that 2 Nancy would accept this function and would be 3 doing this on a routine basis for us probably in the future. How often? We don't know. At 4 5 every working group? Possibly. But that was, 6 I think the generalized expectation. 7 MS. ADAMS: And the other thing, too, is 8 these happen to be the categories that I pull 9 from the database. If there's stuff that's 10 not here because I don't know that it's 11 important or I don't know that it's of 12 interest, this is the mechanism to let me 13 know. And that when we devise whatever report 14 or reports there will be from this system that all that information's available. 15 16 DR. BRANCHE: I would still suggest whatever 17 suggestions you have take them to the 18 respective work group chair so that that 19 person can have the final say over the 20 element. So if you could make those -- you 21 can copy Nancy, but it really does need to be 22 the work group chair who makes the final 23 decision. 24 MS. MUNN: That's what I anticipate we'll 25 do. Thank you. We'll be gone for 15 minutes.

1 DR. BRANCHE: We'll put the phone on mute. 2 (Whereupon, the working group meeting 3 recessed from 10:30 a.m. until 10:45 a.m.) 4 DR. BRANCHE: Ms. Munn is ready to start 5 again with the Procedures work group meeting. 6 Could someone please let me know that they can 7 hear what I just said? 8 DR. ZIEMER (by Telephone): This is Ziemer. 9 I'm hearing you loud and clear. 10 DR. BRANCHE: Thank you, Dr. Ziemer. 11 Ms. Munn, it's all yours. 12 DISCUSSION OF PROCEDURE TRACKING DATABASE EXCHANGE 13 MS. MUNN: As most of you know there's been 14 an exchange of e-mails recently with respect 15 to the database and some changes that have 16 been made. 17 Stu, do you and Steve want to see 18 where we can go from here? 19 MR. HINNEFELD: Yeah, this could be pretty 20 short because I think we agree. We originally 21 -- I think actually ORAU in viewing the 22 statuses on some of the findings felt like 23 there were certain ones that could be listed 24 as closed because the action had been taken 25 care of or the database says no further

action.

2	So I gathered those and sent those
3	over to, I sent those to the work group and to
4	some of the SC&A principals. Steve Marschke
5	then responded and agreed with some of them
6	and said, well, no, we don't agree on these
7	others because this. And I agreed with
8	Steve's response on the argument with what he
9	said. So we can go through those and talk
10	about the status changes if you want.
11	MS. MUNN: I think for the record it would
12	be a good thing to do simply because the last
13	e-mail that I had indicated that there were
14	some differences.
15	MR. MARSCHKE: I have handouts if somebody -
16	- of the response that I put together. I
17	don't think I have enough for the whole group.
18	DR. BRANCHE: Can we make copies?
19	MR. HINNEFELD: I don't need it. I've got
20	it electronically.
21	MS. MUNN: Yeah, I don't need it either.
22	MR. MARSCHKE: If somebody needs one,
23	they're here.
24	DR. BRANCHE: What about Dr. Ziemer and Mr.
25	Griffon? Do they have it electronically?

1 MS. MUNN: They have it electronically, I 2 believe. 3 DR. ZIEMER (by Telephone): Was this within 4 the last day or so? 5 MS. MUNN: Yes. This was, the dates of the e-mails were -- hold on just a moment --6 7 DR. BRANCHE: It's an e-mail from Wanda that 8 she sent on --MS. MUNN: -- the 16th, I believe, I sent 9 out, yes, on the 16th. 10 11 DR. BRANCHE: I have actually it's an 12 attachment to two different e-mails, one from Stu on May 9^{th} , and then Steve on the 18^{th} . 13 14 And then you forwarded it to me and several others on the 18th is what I have from Wanda. 15 MR. HINNEFELD: Steve's response includes my 16 17 initial, submittal of the language from my 18 initial submittal. So if you find Steve's 19 response, you don't need to find mine. 20 DR. BRANCHE: I just don't have any tracking 21 here to indicate, Wanda, that you sent it, you must have sent it under separate cover to the 22 23 work group. MS. MUNN: No, I sent it on the 18th. 24 25 MR. GRIFFON (by Telephone): Is it called

1 "Response to Stu" --2 MS. MUNN: Yeah. 3 MR. GRIFFON (by Telephone): -- @ K-M-V dot-4 dot? 5 MS. MUNN: That's it. MR. GRIFFON (by Telephone): Okay, I've got 6 7 it. 8 DR. ZIEMER (by Telephone): What's the date 9 of that one? 10 **MS. MUNN:** 5/18. 11 DR. ZIEMER (by Telephone): Eighteenth? 12 MS. MUNN: Did you find it, Paul? DR. ZIEMER (by Telephone): No. 13 14 DR. BRANCHE: Well, the name of the actually 15 the subject line for the e-mail says 16 "Suggestions --17 DR. ZIEMER (by Telephone): I think maybe 18 you sent that to my Purdue e-mail. 19 MS. MUNN: I don't think so. I've tried to 20 get the Purdue off it. 21 DR. BRANCHE: Paul, the subject line says 22 "Suggestions for Procedures Tracking 23 Database". It's the attachment that's called 24 "Response to Stu-dash-K-M-V dot-dot. 25 DR. ZIEMER (by Telephone): Yeah, I know

1	that I've read it in the last couple days, but
2	it's not on my regular e-mail. I'll open my
3	Purdue e-mail while I'm here. I think that's
4	where it ended up. Go ahead.
5	MS. MUNN: All right. So we start out with
6	OTIB-0007 rather than -0017, right?
7	MR. HINNEFELD: That was my typo, ORAU typed
8	it right.
9	MS. MUNN: So this is okay. It should be in
10	abeyance, correct?
11	MR. HINNEFELD: I think that's how it went,
12	right?
13	MR. MARSCHKE: It should be closed.
14	MR. HINNEFELD: Yeah, it should be closed.
15	MR. MARSCHKE: It's permanently in abeyance,
16	and it should be closed.
17	MS. MUNN: Seven is now officially closed.
18	PROC-003. So is the table going to be
19	carried forward or not? It was
20	MR. HINNEFELD: It was not. The findings
21	were against the table, and the table was not
22	necessary. So it was not included in the
23	superceding document.
24	MS. MUNN: So that's closed as well.
25	OTIB-0002.

1	MR. MARSCHKE: OTIB-0002 is all this table
2	that's on the next, the details are over on
3	the next couple pages.
4	DR. ZIEMER (by Telephone): I did find my
5	copy. Thanks.
6	MS. MUNN: Good.
7	Is the agency and the contractor in
8	agreement with the Table 3.1-1 as it's now
9	shown?
10	MR. HINNEFELD: I agree with what Steve
11	sent.
12	MR. MARSCHKE: That's Table 3.1-1 of the
13	third review.
14	MR. HINNEFELD: Yeah, when we reviewed OTIB-
15	0002.
16	MR. MARSCHKE: When we reviewed OTIB-0002.
17	This is essentially data
18	MR. HINNEFELD: So you probably, you didn't
19	repeat these findings exactly, right?
20	MR. MARSCHKE: Well, this table was ripped
21	right out of that report except for what I
22	added in red, what was added in red.
23	DR. MAURO: I guess on this copy the red is
24	the light-colored version.
25	MR. MARSCHKE: The red is the lighter color.

1	MS. MUNN: So there are still responses
2	pending.
3	MR. MARSCHKE: There's action items both for
4	SC&A, as I identified it, and for NIOSH.
5	MS. MUNN: Identify new findings. So we
6	have action items embedded in that table that
7	may not
8	MR. HINNEFELD: Well, these action items
9	clarify what has to happen back on the
10	details.
11	MS. MUNN: On the OTIB itself.
12	MR. HINNEFELD: I mean, you could attach
13	this response or the table I would think. I
14	don't know if that would be helpful or not to
15	attach this table in the database to this
16	finding.
17	MR. MARSCHKE: Most of these things they're
18	
19	MR. HINNEFELD: They're already there.
20	MR. MARSCHKE: I mean, if we want to pull up
21	the database, we can pull up the database and
22	look.
23	MR. HINNEFELD: Yeah, let's look if I can
24	get through to anything. It doesn't maneuver
25	very well for me because which one are we

1 on now? OTIB-0002. It just takes a little 2 while. It's not very fast anyway with 3 wireless. It's so much slower. OTIB-0002, 4 Rev. 0 or Rev. 1? Yeah, Rev.1. 5 So far when I've tried to maneuver on 6 my laptop sometimes the little tabs or details 7 disappear when I go to a certain screen, and I 8 haven't been able to figure out how to fix it. 9 I haven't seen it on my desktop in my office, 10 but in my laptop... Which procedure do you 11 want to go to the detail on? Just pick one 12 off your table. What's a good one to look at? 13 MR. MARSCHKE: A good one to look at is 14 Finding Number 2. 15 MR. HINNEFELD: Okay, Finding 2, I got it. 16 I got it. 17 MR. MARSCHKE: It basically shows that SC&A, 18 in the finding it shows that SC&A has an 19 action item. It says SC&A did not identify a 20 particular documents or references. So I put 21 in here on the table, I said SC&A should 22 identify particular documents and references. 23 So really all the stuff that's in red on this 24 table was drawn from the comments that are in 25 the database.

1 MS. MUNN: The only question in my mind is 2 whether you're now tracking that adequately 3 the way we're trying to track the outstanding 4 issues on this database. Is that going to 5 come up for us when Nancy sorts it, for 6 example? I guess it will. 7 MR. HINNEFELD: Well, I mean, he's just 8 paraphrasing what's on the details page of the 9 database. So if we answer the details page on 10 the databases appropriately, that should take 11 care of that. Wouldn't hurt to keep it in 12 mind I should say. 13 DR. MAURO: We're almost like learning how 14 to walk. 15 MS. MUNN: Yes. 16 DR. MAURO: In other words if we just got a 17 new bicycle, great bicycle, but we don't know 18 how to ride the bicycle yet. So what we're 19 really doing now is -- I want to step back 20 just a moment. What we're doing now is we 21 realize we just made a judgment. The judgment was the things we're going to talk about today 22 23 are the things that SC&A and NIOSH exchanged 24 information on over the past month. In other 25 words from this global thing that's out there,

1 we decided that we're going to zero in right 2 now is some very specific things that for 3 whatever reason, was the subject of some 4 exchange, and we've reached some, what we believe at least, some degree of resolution, 5 closure or whatever, status. So in effect 6 7 that's what we want to do. By way of protocol 8 is that what we're going to do in the future? 9 That is, for all future work group meetings, 10 is it our intention that the way we're going 11 to come out of this perhaps after we go over 12 the big picture, the status report as Nancy sort of summarized, then we zero in on what 13 14 new has occurred from the last work group 15 meeting to this one and go over the exchanges. 16 MR. HINNEFELD: I would think because the 17 exchanges would be in here. 18 DR. MAURO: And the exchanges will be 19 loaded. 20 MR. HINNEFELD: They'll be loaded in the 21 database so we'll both have time to address 22 them. Or there may be just one entry like we 23 may go away, and it's our turn for a response. 24 And so that might be a response you guys, you 25 know, we would get in days ahead of time. You

1 can read it. If it's suitable, we can come 2 here and be done. Or if not, you may want to 3 provide, you might say we'll be providing 4 something additional. I mean, it would be, I 5 would think, something like that. 6 DR. MAURO: I guess I'm really asking a 7 question. Is that how our modus operandi is 8 going to be? 9 MS. MUNN: And that's one of the big 10 concerns for the work group right now is, all 11 right, now that we have this marvelous tool, 12 exactly how are we going to use it in the 13 future? What's our process going to be inside 14 the working group using this new tool? 15 And if we, a concern, for example, is 16 will the first agenda item be in the future 17 here or are all open items? Are we going to 18 continue prioritizing? I actually left some 19 space for us to talk about this at 20 considerable length this afternoon, and 21 perhaps we may need to visit it more than 22 once. Because exactly what our process is 23 going to be, given that it changes everything, 24 it's an important thing for us to decide upon. 25 DR. MAURO: We just jumped into a process

just now.

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MS. MUNN: Exactly. DR. MAURO: Do we want to do that? Is that what we want to do? MS. MUNN: And who's going to select which of those items we're going to be jumping into? How do we do that each time? In the past we've tried to prioritize what we were going to look at based on a number of issues that were outstanding at the time. Then attempted to follow up on those items while still addressing continually, upcoming new issues. We used our matrix and an action item list to do that in the past. Is our action item list going to be an open item list from this set of procedures every meeting that we have? DR. MAURO: I just saw a weakness in our bicycle. When we have a conversation like this, what we usually talk about when we hit an issue, the model was this. We're on an issue -- and this is the way the old matrix used to work -- and there would be an action item. And right in the matrix we would write

an action item. And the idea being, okay, we

put it in the balance of this stack of paper.

1 What I'm hearing now is maybe that's not going 2 to serve. What we really need is for each 3 meeting as a standalone, here are the list of 4 action items. Because right now the way in 5 which we designed this thing, the action items 6 are embedded in each of these issues that are 7 sort of --8 MS. MUNN: Yes, they are in all three sets. 9 DR. MAURO: -- and what would seem to serve 10 us better is building this thing, it really 11 would serve us better, that is, there are a 12 series of action items that are going to come out of this meeting. And it would be nice if 13 14 they're all in one place and not dispersed, 15 embedded in each separate item in the matrix. 16 MS. MUNN: Correct. 17 DR. MAURO: So right now we have not 18 developed, I mean, I think we could agree 19 that's probably a useful thing to have. For 20 each meeting there's going to be a set of 21 action items, which are cross-cutting. That 22 is, whatever the action items are, there's a 23 list of ten, and they may affect five, six, 24 seven different procedures. If that stood 25 alone somewhere and became the kick off to

this meeting --

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2 MR. MARSCHKE: We should be able to do that. 3 That's a relational database is what you're 4 looking for. That's a relational database, 5 and that's the way it should be set up. Ιt 6 shouldn't be a problem in being able to do 7 that. Sort the action items not only by 8 procedure or findings that they are associated 9 with, but also the meeting dates that they are 10 associated with. That should not be a 11 problem. 12 The one thing that bothers me though 13 on this particular finding is here we had a 14 directive to revise the OTIB. And what I 15 think should be done to this particular field 16 is I think we should put in here that NIOSH 17 did revise the OTIB on such-and-such a date, 18 and then we should put it in there. 19 And then we should put in here that 20 SC&A reviewed the revised procedure and found 21 whatever comments that we had in this table 22 here, we did not agree that it basically 23 corrected the findings. And we should put 24 that in there and the date associated with the 25 third set should be -- so actually, these

1	fields down here should be filled in. And now
2	we're talking about now we will put in
3	another, the second record on 5/20/2008, where
4	we are back from discussing this finding a
5	second time.
6	MS. MUNN: So that's what we're looking for.
7	DR. MAURO: What I hear and I agree with
8	you're saying that is that if we're really
9	being dutiful to the model that we're building
10	in our head right now, SC&A and NIOSH should
11	have populated this document with that
12	information and brought it to the table so
13	that it would already be there. And then when
14	we get into the discussion section that
15	becomes the next date of this work group
16	meeting and our discussions regarding it
17	building on how we're going to move forward.
18	And I agree, that's the way it should be
19	MR. MARSCHKE: Yeah, that's the way
20	DR. MAURO: And we didn't do that.
21	MR. MARSCHKE: We didn't do that, and the
22	reason we didn't do it is we didn't have the
23	database when we were writing the third set of
24	findings. But when we go back, we should
25	take, we should look at the third set, or

actually, the second set also because both of those, the revised second set, I believe also had some re-reviews in them. And so any time we do a re-review, we should basically indicate in the database that that was rereviewed and the finding was either we agree with what was done or we disagreed with what was done.

9 MS. MUNN: This is a major concern, this 10 change-over period right here. You 11 specifically did not get an action item list 12 from the Chair for this meeting, which you've 13 had in the past. The simple reason for that 14 is human frailty. I couldn't find my notes in 15 the file from the meeting where I identified 16 what action items were supposed to be in front 17 of us for this meeting. Moving from that list 18 to relying on being able to pull that 19 information out of the database is, I think, a 20 valid concern.

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21If we're going to use the database as22our action item profile for each of our23individual meetings, then we need that data24certainly several days in advance of each25meeting itself. And the question of how we

1 assure that that database gets filled in from 2 the preceding activities that have occurred is 3 a question that is still unresolved in my 4 mind. It's not clear how this is going to 5 work. 6 And it would perhaps benefit us to not 7 try to resolve it this instant sitting around 8 the table since we do have a specific item for 9 the afternoon. We've devoted an hour's time 10 for the possibility of discussing pretty much 11 this same activity here. It would be helpful 12 for us to think about it a little bit between now and then and revisit this. 13 14 Do we all understand what the issue is 15 as I perceive it? 16 DR. ZIEMER (by Telephone): Let me comment 17 on that, Wanda. Number one, if you have a 18 list of action items, it's a little difficult 19 until we know that they've been completed for 20 you to even schedule, for example, a next work 21 group meeting unless you know that they've 22 been attended to. 23 MS. MUNN: Yes. 24 DR. ZIEMER (by Telephone): So somehow we 25 need feedback in between from the NIOSH and

the contractor, maybe to the Chair, that specific items, I mean, you can have a tentative agenda, which makes use of those action items, but you need feedback that they've actually been addressed otherwise there's no point in meeting.

MS. MUNN: We do, indeed. My concern is that we don't, I don't believe our current process gives us that list of action items walking out of this meeting that I have been doing administratively in the past. That's my concern.

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I don't think we would get it 13 MR. MARSCHKE: 14 walking out. We won't get a list of action 15 items, an automated list of action items, 16 walking out of this meeting, but walking into 17 the meeting next time, we should be able to 18 have that automated list and some point in 19 time before the next meeting, whoever's 20 running the database can provide to Wanda the 21 status of those action items. What I would take is any action item 22 23 that is specific for a finding, we will take, 24 and we will implement, and we will add that to

the database as something that is a directive

1 down here. And as John just said, we will 2 then, if we don't have already, we will then 3 add the capability to sort by meeting date, 4 working group meeting dates. 5 And we will get all these working 6 group directives that are associated with that 7 meeting date and anything else that is associated with them, any NIOSH follow ups or 8 9 any SC&A follow ups associated with it. Is 10 that what you're looking for, Wanda? MS. MUNN: 11 That's pretty much what I'm 12 thinking at this moment. Let's do not try to 13 resolve it right here this issue, this moment, 14 but let's do think about it over the time that 15 we have between now and this afternoon. And 16 let's try to resolve that question 17 specifically. 18 DR. ZIEMER (by Telephone): Well, let me put 19 another item into the thought process here. 20 It would seem to me that you could easily have 21 an action item that you're going to carry 22 forward for a longer period of time that you 23 wouldn't necessarily deal with at the 24 subsequent meeting simply because either NIOSH 25 or SC&A cannot complete that part of the work.

1 The item is then identified. Maybe it's a 2 white paper or something. You have maybe an 3 estimated date that it's going to be 4 completed, and you can carry that forward for 5 a longer period of time. I don't think we 6 need a guarantee that every action item 7 identified is going to be completed or 8 addressed at the next work group meeting. 9 MS. MUNN: We know that's not going to 10 happen. 11 DR. ZIEMER (by Telephone): But at least you 12 want to have some action items. You're not 13 going to have a meeting with no action items 14 ready for discussion. 15 MS. MUNN: Correct. 16 MR. MARSCHKE: I'm sorry. What I meant to 17 say is we will give you a status of what the 18 action items are and those that have been 19 closed will be statused as closed. And those 20 that are being worked will be continued to be 21 carried forward to the following meeting. 22 DR. ZIEMER (by Telephone): Wanda or Stu, 23 could I ask a specific question on this OTIB-24 0002 where Stu says there are 11 findings, 25 three of which are closed, eight of which are

1	in abeyance. We think all 11 should be
2	closed. Do you have that item there? Is that
3	the one you were looking at?
4	MR. HINNEFELD: Yeah, that's the one we were
5	looking at most recently.
6	DR. ZIEMER (by Telephone): Now, my question
7	is when you say they're closed because they
8	are re-evaluated under Supplement 3, it seems
9	to me that doesn't guarantee that the issue's
10	been closed.
11	MR. HINNEFELD: Right.
12	DR. ZIEMER (by Telephone): It's sort of
13	moved out of the first set of cases, but it
14	could still be an open item. Isn't that
15	correct?
16	MR. HINNEFELD: I think that's true. It
17	probably depends on what was said in the re-
18	review about the, I mean, if the re-review
19	says these earlier findings weren't closed,
20	and that's all it says, then you need to keep
21	your earlier findings open and close them
22	based on the earlier review.
23	DR. ZIEMER (by Telephone): Well, I'm
24	talking about the eight that are listed as in
25	abeyance.

1	MR. HINNEFELD: Right.
2	DR. ZIEMER: And I guess the argument is
3	since they've been now in a sense moved into
4	the second or third group of procedures for
5	review and have been reviewed later, that we
6	don't have to worry about them under this
7	report. It seems to me if they're not yet
8	closed, even if they're in a different round
9	now, that we shouldn't show them as closed.
10	Do you know what I'm saying?
11	MR. MARSCHKE: I think that's probably
12	MR. HINNEFELD: Yeah, that's what Steve said
13	in his response to me.
14	DR. ZIEMER (by Telephone): Okay, that's
15	what
16	MR. HINNEFELD: And I said I agreed with
17	that.
18	DR. ZIEMER (by Telephone): That's what you
19	were implying, the same kind of thing then.
20	MR. HINNEFELD: Yes, yes.
21	MR. MARSCHKE: We agree with you, Paul.
22	DR. ZIEMER (by Telephone): So later on when
23	it was and I don't know that you'd want to
24	necessarily go back into the first report and
25	put all the iterations in that first report.

It could just stay there as in abeyance until
it was actually closed in the later one. And
then you refer to the later report, and you
would have all the other iterations in there,
right? It sounded like you were wanting to
put all the iterations back in the first
report.
MR. MARSCHKE: I don't think we're going to,
are we doing reports or are we just going to
put it
DR. ZIEMER (by Telephone): Well, I don't
mean
MR. MARSCHKE: in the database.
DR. ZIEMER (by Telephone): The first
database.
MR. MARSCHKE: We want to track all the
changes in the database so that we have a
history of how this came about.
DR. ZIEMER (by Telephone): Yeah, but once
you say that it's in abeyance because it's
been moved to the third database, for example,
then it seems to me a person could go to the
third database and get the status there. You
don't have to transfer that additional
information back to the first database. Just

1	think about that as a possibility. It's going
2	to show up in two places, right?
3	MS. MUNN: Is this not a transport item?
4	Isn't this
5	MR. HINNEFELD: No.
6	MR. MARSCHKE: No.
7	MR. HINNEFELD: I think it depends upon how
8	the findings for the second review are
9	phrased. If the findings in the second review
10	essentially parrot the finding in the first
11	review and say this was done earlier and isn't
12	resolved, and it is listed there as a finding
13	in that second review, well then, you could
14	close the earlier one because you've carried
15	it forward into this second finding. You can
16	close it there.
17	If it's not phrased that way, if the
18	second report just says some of the original
19	findings we don't think were closed by this
20	revision, it just says that, then you still
21	need to keep them open back on the first
22	review so that you can go back and find out
23	the original finding and close the original
24	finding. So it depends upon how they're
25	specifically stated.

1 I have the summary statements of the 2 findings here, but I haven't for right now 3 gone back and try to compare and give a 4 judgment on do I think this is just a repeat 5 of the one from the earlier review. I haven't 6 done that yet. I mean, we can go out here and 7 do that and maybe make some recommendations 8 based on that. 9 Because our recommendation to say it 10 was closed was just we revised, our action was 11 we were going to revise the OTIB and revised 12 That's where that recommendation came it. 13 from. What Steve has correctly pointed out 14 was, well, but the re-review indicated that 15 that revision didn't close all those findings. 16 It didn't necessarily close all those 17 findings. 18 MS. THOMAS: If I can just add something 19 here. It was confusing when I was looking at 20 some of these items. There were several 21 scenarios. One was that a document, we would 22 either revise the document or create a new 23 document like Procedure 4, 5 and 17. Those 24 findings got closed and moved to Procedure 90. 25 And then like for OTIB-0002 there was another

1 rev. which I guess we kind of view as a 2 different document than rev. 1 and re-review 3 that. It might be simpler to make sure that 4 initial findings with the rev., like rev. 1 in 5 this case, get moved to rev. 2. Then you can close out everything for rev. 1. And then 6 7 there were cases where you reviewed the second 8 rev. or another rev. And then there were 9 cases where you hadn't yet like in Procedure 10 90. And it was hard to follow with just these 11 handful of statuses, you know, was there 12 consistency --13 MR. MARSCHKE: We haven't been totally 14 consistent. We haven't been, as we should be 15 in how we are transferring things --16 MS. THOMAS: Yes. 17 **MR. MARSCHKE:** -- and how we are handling 18 the database. Nobody has really sat down and 19 really figured out a set of working procedures 20 on this is how the database is supposed to be 21 worked. 22 MS. THOMAS: What I'm suggesting is that 23 maybe we decide that first and then just maybe 24 decide how we're going to --25 MR. MARSCHKE: Close out, once a new rev.

1	comes out, we're going to close out all the
2	old ones and create new ones or whether we're
3	just going to keep the old ones open until
4	they're closed? I mean, we can do it either
5	way. It's just preference as to how you want
6	to do it.
7	MS. MUNN: This is all a part of our
8	learning curve including the issue of
9	language. How we are going to word the
10	findings that are put into the database will
11	be key if we are, in fact, going to rely on
12	that wording to move us forward. The
13	preference would appear to be closure in the
14	example that we were just citing. Closure of
15	the first revision, but assurance that the
16	issues that were being transferred are
17	properly transferred in totality so that you
18	have open items correctly open but items which
19	may have been agreed to and resolved be not
20	carried forth.
21	DR. MAURO: You see, to me it's, we have an
22	archive. We just want to be clear to the next
23	generation of people that take this over
24	because there will be different people going
25	through the system whether it's from NIOSH or

1	at SC&A, and when they go in here, if there's
2	an item that's closed, and the reason it was
3	closed is because for all intents and purposes
4	it's being handled by another procedure
5	review, that should be stated in the text.
6	In other words there'll be a little
7	box that says closed. And they want to see,
8	okay, how was it that's the whole purpose
9	of this archive. Okay, it was closed. There
10	are a lot of reasons why something could be
11	closed.
12	MS. MUNN: Was it resolved and agreed to or
13	was it transferred? Was it exported?
14	DR. MAURO: And I think that's a decision
15	that we simply have to make around this table.
16	How do we want to do that? And then we just
17	do it that way. But we make sure we make it
18	clear in the archive what it is we did.
19	DR. ANIGSTEIN: I have a question for Steve.
20	Steve, can you put a little comment in
21	it the way you do in Excel? It has a comment
22	in a cell so that doesn't work?
23	MS. MUNN: Speak up, Bob, so the
24	DR. ANIGSTEIN: I was just suggesting, can
25	you insert a comment into a box? Because I'm

not familiar with this. And Steve just said, no, you can't.

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DR. MAURO: It's almost as if it could be very forgiving. What I'm getting at is let's say there's a degree of inconsistency in how we call things. But as long as we're not ambiguous in our rationale and justification in the box below, in other words let's say for some reason someone calls it a transfer but someone else could have called it closed, let's say that happens.

12 But as long as both people in the text 13 that goes along with it say this is what we 14 We called it closed because of this or did. 15 we called it transferred because of this. 16 It's almost very forgiving then. And if we 17 do, if there is a degree of, we like to 18 eliminate inconsistency, but we can live with 19 a little bit of inconsistency as long as our archive is complete and explain what we did 20 21 and why we did it I think we get away with it. 22 MS. MUNN: And as long as the transferred 23 items are transferred appropriately. 24 DR. MAURO: Oh, absolutely. 25 MS. MUNN: Which is why language is so

important in how we approach this.

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MR. MARSCHKE: But to come back to the example of set one PROC-0004, -0005 and 0017, they were not transferred to PROC-0090 by putting transferred in the status box. Thev were basically closed and new ones were really opened, and if you look at the findings associated with PROC-0004 in the first set, I don't know, in the status box you will see closed. You won't see transferred. So again, it's just, but the information is there. I don't know what it says down in the detail box why it was closed. This was closed because it was transferred to PROC-0090? Hopefully, it does. And so really, like John says, it's kind of a wash. It's maybe not done consistently, but the information is there. MS. MUNN: Well, we need to strive for as

MS. MUNN: Well, we need to strive for as much consistency as we can get. So --

MR. GRIFFON (by Telephone): And, Wanda, I think the other place it's probably fairly important is we have a draft letter for the first status report to the Secretary, and you're saying x number are closed. I think they may interpret that a certain way. We

better be clear in our language if we're going
to submit a report to the Secretary.
MS. MUNN: Well, the report itself is pretty
specific about that. This cover letter is
very vague for a very, what I thought was a
good reason. That is
MR. GRIFFON (by Telephone): But just those
items we just talked about, I know all those
findings from the earlier CATI procedures that
were transferred to 90, I assume they're
listed as closed. And I didn't sort in my
mind, view those as closed. They were
transferred
MS. MUNN: Yes.
MR. GRIFFON (by Telephone): But they're
tabulated as closed I believe in your
statistics.
MS. THOMAS: They're closed for Procedure 4,
5 and 17, but they're open for Procedure 90.
MR. MARSCHKE: On your cover letter they're
included in the 99 that you have identified as
being closed.
DR. MAURO: This is your choice. This is
really your choice. That is, it's a
definition issue. And I think what Mark

1 pointed out is a good point. We don't want to 2 be misleading to -- it may appear when you're 3 saying closed is that, oh, we've accomplished 4 something. But in fact we really haven't 5 accomplished too much because what we really 6 did is move it out of here and put it over 7 there. We still have to deal with that issue. 8 So I mean, if your objective in the 9 letter is to communicate accomplishment, 10 things that have actually technically 11 accomplished, calling it closed might be a 12 little misleading but from that perspective. 13 From our perspective it's just the archive and 14 what we call it. I mean, it could go either 15 way, but I could see why you'd want to -- in 16 that context it's probably a good idea to make 17 it clear that it was transferred out so that a 18 person doesn't think we actually solved this 19 problem. 20 MS. THOMAS: Again, if I could add a 21 comment. From --22 MR. GRIFFON (by Telephone): I guess, this 23 is, John, I'd just add on to what John was 24 saying. I guess I was reading closed as 25 resolved, and I'm not sure that letter might

1 lead people to believe that. 2 DR. MAURO: I'm starting to lean toward the 3 transferred concept more than the closed 4 concept. I think closed should be clean. 5 This issue itself, wherever it's sitting, wherever it's sitting, is not closed --6 7 MS. MUNN: Then it's over. 8 DR. MAURO: -- then it is closed. It's a 9 cleaner way to go. 10 MS. THOMAS: From our perspective the most 11 used, the example of Procedure 4, 5 and 17, 12 those documents don't exist anymore so to have 13 open findings for documents that have been 14 canceled and no longer used seems a little 15 strange so the transferred might be better. 16 MR. GRIFFON (by Telephone): Well, I'm not 17 sure that's strange because those procedures, 18 if you look back at old dose reconstructions, 19 they're still applicable. 20 DR. MAURO: That's true, too. That's a good 21 point. 22 MS. THOMAS: That's true. 23 MR. HINNEFELD: Well, this is sort of an 24 odd-ball case. In fact, not only have these, 25 these closed cases have been, I mean, if the

1 number of closed is over-counted, but the 2 total number of findings is over-counted as 3 well. Because these procedures, these same 29 4 findings appear twice. They're closed one 5 time, and they're open another time. So we've 6 actually could count the total findings as 29 7 too high. And the 29 too high is in the 8 closed column. 9 MR. GRIFFON (by Telephone): Yeah, and I 10 thought about that, too, Stu. I think you're 11 right. Yeah, that's another factor. 12 MS. MUNN: Well, as the King of Siam would 13 say, it's a puzzlement. 14 MR. HINNEFELD: Is it one of the things you 15 want us to think about until this afternoon? 16 MS. MUNN: It's really something we need to 17 think about and try to resolve this afternoon. 18 We certainly do not want to fall into the trap 19 of misleading anyone, least of all the 20 Secretary. And we want to be crystal clear in 21 what we transmit. So let's do give some very 22 serious consideration to exactly what we're 23 going to use in terminology and how we are 24 going to report that. We'll take that up this 25 afternoon when we get to the discussion on

1	open and open-in progress. We'll add to that
2	the transferred and import-export issue and
3	hopefully wrestle all that to the ground this
4	afternoon.
5	Continuing on through the list of
6	items that we were looking at, it appears to
7	me OTIB-0001 has no disagreement with the
8	items that are listed there. Six and 14 are
9	closed and others are in abeyance, correct?
10	MR. MARSCHKE: Yes.
11	MR. HINNEFELD: Yeah.
12	MS. MUNN: And on IG-0002, five, eight and
13	nine
14	MR. HINNEFELD: We agree with Steve's
15	response. Eight and nine are closed and five
16	should remain in abeyance. Isn't that what it
17	says?
18	MR. MARSCHKE: Yes. So based on this I
19	should take it as an action item from the
20	working group to go into the database and make
21	these six findings changed to closed?
22	MR. HINNEFELD: That's my understanding.
23	MS. MUNN: Yes. That's correct. Five is
24	still in abeyance. Yes, that is the directive
25	unless I hear to the contrary.

1	DR. ZIEMER (by Telephone): So this is on
2	IG-0002?
3	MS. MUNN: IG-0002, yes.
4	DR. ZIEMER (by Telephone): So ten items in
5	abeyance, but three of them okay, you're
6	saying that five remains in abeyance?
7	MS. MUNN: Five remains in abeyance and
8	DR. ZIEMER (by Telephone): Eight and nine
9	are closed.
10	MS. MUNN: eight and nine are closed.
11	MR. GRIFFON (by Telephone): See, this is
12	where I would say the work group concluded
13	that no action was necessary on eight and
14	nine. I would almost categorize that as
15	resolved rather than closed. Because I still,
16	you know, that's I guess our other discussion.
17	MS. MUNN: Well, resolution
18	MR. HINNEFELD: It's not as bad as Mound.
19	MS. MUNN: No, resolution leads to closure.
20	And that means we're not going to look at it
21	again.
22	MR. MARSCHKE: Right.
23	MS. MUNN: And so that's what we deem to be
24	closure, final resolution regardless of what
25	that resolution is.

1 MR. GRIFFON (by Telephone): Okay, but all 2 these other ones that were closed were 3 actually transferred to different procedures. 4 MS. MUNN: Yes. 5 MR. HINNEFELD: Well, just the ones we 6 talked about today. I mean, there are a lot -7 8 DR. ZIEMER (by Telephone): You're going to 9 mark those as such, not as closed then. 10 MS. MUNN: Yes, the ones that were 11 transferred to other procedures we're going to 12 attempt to see that the language, I hope that 13 it will be our attempt to see that the 14 language indicates where they were 15 transferred. And we're going to debate this 16 afternoon the issue of how, what specific 17 language will be used for this shorthand 18 version of reporting that. Okay? 19 DR. ZIEMER (by Telephone): Yeah. 20 MS. MUNN: I think we've covered the 21 material that we've needed to cover here. Т 22 hesitate to undertake any of the other items 23 that we have on the agenda since all of them 24 are going to be significant and time consuming 25 I do believe. Is there any objection to our

1	leaving for lunch ten minutes early?
2	DR. ZIEMER (by Telephone): Just a question
3	on the afternoon agenda. So you're going to
4	begin then with TIB-6001? Is that right?
5	MS. MUNN: With TBD-6001 and the resolution
6	matrix for Appendix BB.
7	Bob?
8	DR. ANIGSTEIN: Did you mean, are you sure
9	you mean 6001 and not 6000?
10	MS. MUNN: I mean 6000, sorry.
11	DR. MAURO: And my question, Wanda, this is
12	John. Will you expect to actually start the
13	discussion on the findings in 6000 or do you
14	want to just zero right in on Appendix BB?
15	Two different subjects. I mean, you know one
16	is a subset of the other. Appendix BB stands
17	alone.
18	MS. MUNN: That's the one that is of most
19	significance right now that is outstanding,
20	and we have the matrix and the findings in
21	hand to address. So it's my intent to have
22	you touch on what TBD-6000 is and then go
23	directly into our issue with Appendix BB and
24	the matrix unless someone has objection to
25	that.

1 DR. ZIEMER (by Telephone): Just in 2 preparation, do we have the date of the 3 version of the matrix you're going to use? 4 MS. MUNN: Yes, hold on. I believe there 5 was only one. Did we have more than one version of that matrix? 6 7 DR. MAURO: Just that one. 8 DR. ANIGSTEIN: I think there are two 9 matrices. There is a matrix for 6000, and 10 then there is a matrix for Appendix BB. 11 MS. MUNN: The matrix for Appendix BB was 12 the one that I anticipated would be addressed. 13 DR. ANIGSTEIN: That was done --MR. MARSCHKE: May 2nd was the date on it. 14 15 Is this what you're talking about? **DR. ANIGSTEIN:** Is that the matrix? 16 17 MR. MARSCHKE: It's a resolution. That's what it says on the title. 18 19 DR. MAURO: This is 6001. 20 DR. ANIGSTEIN: This is -- that was a 21 misprint. I see where the problem came in. 22 That was a typo. 23 MS. MUNN: So it is 6000? 24 DR. ANIGSTEIN: Yes, this should read 6000. 25 DR. BRANCHE: So Wanda's agenda should read

1	TBD-6000, and your document should read TBD-
2	6000?
3	DR. ANIGSTEIN: That is correct.
4	MS. MUNN: And the date on it is May 2 nd ,
5	2008.
6	DR. ANIGSTEIN: I believe that's correct.
7	MR. PRESLEY: Who sent it?
8	MS. MUNN: And it was sent
9	MR. GRIFFON (by Telephone): I have an e-
10	mail from Nancy Johnson on that date, May $2^{ m nd}$,
11	Paul, if you're looking for it.
12	DR. ZIEMER (by Telephone): Okay, yeah.
13	Thank you.
14	MS. MUNN: All right, very good. It is now
15	11:40, and so we're only five minutes off
16	schedule. We will adjourn until 1:00 p.m.
17	DR. BRANCHE: One p.m.
18	MS. MUNN: Correct.
19	DR. BRANCHE: We will hang up and call again
20	at 1:00 p.m. eastern daylight time.
21	(Whereupon, the working group adjourned for
22	lunch.)
23	DR. BRANCHE: We're continuing now with the
24	after-lunch portion of the Procedures work
25	group, and Ms. Munn, it's all yours.

1	TBD-6000/6001 AND RESOLUTION MATRIX FOR APP BB
2	MS. MUNN: The first item on the agenda this
3	afternoon is TBD-6000, and it's associated
4	TBD-6001. We're going to be focusing this
5	afternoon on Appendix BB to TBD-6000. But
6	before we do that if John Mauro would be good
7	enough to give us a very brief reminder about
8	the content of 6000 and 6001, we'll start from
9	there and
10	DR. ZIEMER (by Telephone): Before he does,
11	John Mauro, what is the correct title of your
12	report? Is it TBD-6001, Appendix BB or -6000?
13	DR. MAURO: Six thousand, it's a typo on the
14	cover page.
15	DR. ZIEMER (by Telephone): So the cover
16	page is wrong.
17	DR. MAURO: Correct. Correct, the cover
18	page is wrong.
19	DR. ZIEMER (by Telephone): Okay, and that
20	title carries throughout the tops of all the
21	pages in the report.
22	MS. MUNN: That is correct.
23	DR. MAURO: We'll fix it.
24	DR. ZIEMER (by Telephone): Yeah, got you,
25	thank you.

1	MS. MUNN: Go ahead, John.
2	DR. MAURO: I will begin. This is by way
3	really of introduction. There are two, I
4	would say, important documents that came out
5	dealing with uranium facilities that are what
6	I would call generic TBDs or site profiles or
7	exposure matrices. One is called TBD-6000.
8	One is called TBD-6001.
9	Six thousand effectively is a generic
10	exposure matrix or technique for doing dose
11	reconstruction for workers at AWE facilities
12	that handled uranium and not, didn't process
13	it, but basically machined it, drilled it,
14	extruded it, cut it, and as a result were
15	exposed to airborne uranium dust, thorium dust
16	well, I don't believe the thorium section's
17	been done yet. It's held in reserve.
18	So it's a generic approach for
19	reconstructing the exposures, basically
20	inhalation, ingestion and external exposures
21	to workers that were up close and personal to
22	uranium metal and including recycled uranium.
23	And we performed a review of that document
24	which was published on September 14^{th} , 2007.
25	It contains seven findings. Three of

1 those findings are basically generic and are 2 being dealt with in other venues. But four of 3 them, specifically findings one through four, are unique to TBD-6000, and I would assume at 4 5 some appropriate time we'll go through those 6 The other three the way I see it are four. 7 really being dealt with in other venues and 8 should be appropriately transferred or 9 referred to these other venues. 10 But the first four are unique to TBD-11 6000, and basically they deal with the 12 dataset. In effect on TBD-6000 what was done 13 is there's a large dataset of generic 14 literature characterizing the airborne uranium 15 dust loading throughout the 1940s and '50s 16 from facilities that were handling uranium. 17 And from that dataset was constructed 18 an exposure matrix to say, okay, let's use 19 that dataset and apply it to all other 20 facilities where we have people that handled 21 uranium, but they didn't take any air samples 22 or didn't take very many air samples, did not 23 take urine samples, did not have film badge 24 data, and we're going to use that as 25 surrogate.

1 So TBD-6000 is important for two 2 reasons. One on its own right. That is, 3 taking the data on face value do we believe 4 that is claimant favorable and scientifically 5 valid as a surrogate for all those site 6 profiles or facilities where there really 7 isn't very good or very much worker-specific 8 data. So it becomes a surrogate data question 9 that I think is going to have to be eventually 10 addressed. 11 In a similar way TBD-6001 deals with a 12 generic description of uranium processing These are primarily facilities 13 facilities. 14 that did wet chemistry. They received uranium 15 ore and as a result digested it, separated it 16 out the uranium, processed the uranium. They 17 had the residue and raffinates, a much more 18 complex situation. 19 But similar to 6000, it is a generic 20 analysis of the kinds of exposures people 21 experienced at these kinds of facilities and 22 built, based on the dataset from many 23 facilities where data were then available, 24 came up with an exposure matrix that would be 25 used to apply to other uranium processing

1 facilities where wet chemistry was done when 2 they did not have any data. 3 Again, it's a surrogate data issue, 4 and we have to look at it not only from the 5 scientific perspective, was the dataset that 6 they used fairly representative of the cross-7 section of activities? Did NIOSH pick an 8 upper end as a reasonable upper bound 9 surrogate? 10 And finally, there are the four big 11 questions, the surrogate questions, that Dr. 12 Melius put out in his draft that we need to 13 ask ourselves. Does it meet the first 14 criteria, the second criteria? So these are 15 subjects that I believe we'll be dealing with 16 around this table at some time in the future. 17 But today there's one particular 18 aspect of TBD-6000 that we're going to get 19 into in a little bit more detail, and that is 20 TBD-6000 has, which is a generic exposure 21 matrix for uranium handling, it has a whole 22 series of appendices. I believe 15 and maybe 23 even more. Appendices which give some very 24 specific guidance for specific facilities. 25 For example, the TBD-6000 is generic

1	and universal, but there are some facilities
2	that had some very unique aspects to them
3	where you would supplement TBD-6000 with some
4	unique aspect. And that's what these
5	appendices are for.
6	For example, Appendix BB for 6000
7	specifically deals with General Steel
8	Industries, which is a uranium handling
9	facility where TBD-6000 applies. But because
10	it is something very, very unique, namely it
11	used a Betatron to do nondestructive testing
12	of uranium slabs. Something that was unique
13	to a few facilities, and specifically General
14	Steel.
15	And so by way of introduction, we were
16	asked to take a real close look at Appendix BB
17	and the exposure matrix assumptions, models
18	and so forth that were used in Appendix BB as
19	an approach for dealing with reconstructing
20	doses to workers at General Steel Industries.
21	And Bob Anigstein prepared that
22	report. The report has been delivered in both
23	in a PA-cleared version. There is a matrix
24	that was distributed, and that's been PA
25	cleared. And Bob actually has a slide or a

1	briefing that he's going to go through which
2	also has been PA cleared.
3	So I just let you know that anyone who
4	might be on the phone who might be interested
5	in getting copies of the matrix, report or the
6	briefing, all of that has been PA cleared and
7	is available for distribution to anyone who
8	might want a copy.
9	MS. MUNN: That being said, Bob, do you want
10	to take us through Appendix BB?
11	DR. ANIGSTEIN: In 1901, the Commonwealth
12	Steel Company was founded in Granite City,
13	Illinois, and it was a foundry. Instead of
14	making steel plates, they made steel castings.
15	In 1929, General Steel Castings, which had
16	been just organized, acquired the Commonwealth
17	Steel, and they also built a new facility in
18	Eddystone, Pennsylvania, basically duplicate
19	facilities doing similar work.
20	During the Korean War, they got a
21	contract with the U.S. Army to make armor
22	plate for tanks. I believe they made, they
23	actually cast the tank turrets and the tank
24	hulls. In order to be able to inspect this
25	armor to make sure there were no defects in it

1	which you wouldn't want to have in an army
2	tank, the Army built, brought from Allis-
3	Chalmers, two Betatrons. And they built the
4	structures housing these, one at Granite City
5	and the other one in Eddystone.
6	So my first slide is this is a view of
7	what then became
8	DR. BRANCHE: For the people on the phone
9	here, the presenter at this point
10	Mark, can you hear him?
11	MR. GRIFFON (by Telephone): Yeah, I can
12	hear him.
13	DR. BRANCHE: Well, right now they're just
14	making some adjustments, so he's not in
15	presentation mode. I just want to make sure.
16	MR. GRIFFON (by Telephone): Yeah, I could
17	hear him before.
18	DR. BRANCHE: Okay, thank you, Mark.
19	DR. ANIGSTEIN: So the top view, this is an
20	aerial view of the facility just to give you
21	an idea. It's a very extensive facility,
22	probably sometime in the 1960s. And what
23	happened there was they had, each of the
24	facilities had a Betatron. Then in somewhere
25	around and that date is in dispute, our

opinion in 1952 -- the Mallinckrodt Chemical Works was producing uranium ingots to be rolled into fuel rods for Hanford. And they wanted to make sure that, just like the Army didn't want defects in their tanks, they didn't want defects in their fuel rods.

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So someone had the idea, hey, right across the river thirty miles away we've got this facility and they had a Betatron going through the Army, so they contracted them to start doing radiographs of slices of the uranium. And this is written up in the Mallinckrodt TBD that there were, Betatron slices were cut from the uranium ingots and there's no other description of them, but we did get good descriptions from the workers.

And these were slices up to, the ingots were up to eight inches in diameter so that would be the maximum size of the slice. The slices can't be any more than four inches because you simply cannot ^rod thicker than four inches of uranium, so we just used the maximum. Probably they were thinner. Then in 1963, General Steel, which by this time was called General Steel Castings, by this time it

1	changed its name to General Steel Industries
2	because they acquired other things besides
3	casting plants, shut down their Eddystone
4	facility.
5	And then GSI, as it's called, moved
6	the Betatron, the Army-owned Betatron, from
7	Eddystone, Pennsylvania to Granite City. And
8	so here you can see. This is the old Betatron
9	building. It's called old because it was
10	built first. The Betatron itself is not older
11	actually, the other one was slightly older by
12	a few months. So it was built you see well
13	away from the other buildings. However
14	that was built by the Army Corps of Engineers.
15	However, when it came time to build
16	another building for the new Betatron, and the
17	Betatron is only new in the sense that it was
18	new to this location, they built it right
19	against, this is called Number 10 Finishing
20	Building. So it goes in this order, this is
21	Number 10, next to it is number nine, eight
22	and so forth. And the idea for it was they
23	wanted to minimize the transfer time.
24	Again, the main purpose of these was
25	to radiograph steel both for the Army and some

for commercial users also. I believe they 1 2 made reactor vessels for nuclear reactors. 3 And they got the idea that if you build it 4 right next to the Finishing Building, there's 5 a railroad track that goes into it, you simply 6 cut down your turnaround time, speed up 7 production. 8 And also, not only speed up 9 production, but the purpose of doing or 10 radiographing the steel was to look for 11 defects. If they found a defect, then it went 12 back into the Finishing Building and it would 13 be chipped and grinded. I think of it as a 14 dentist filling a cavity in a tooth. First, 15 he has to clean it, you know, cut away some 16 more tooth surface then he fills it. So 17 that's pretty much what they did. 18 They would hollow out a cavity 19 wherever the defect was and then fill it in 20 with the good metal. And they wanted for the 21 casting to stay warm because then you didn't 22 have to heat it up again. So again, the less transfer time the more efficient the 23 24 operation. 25 However, it does cause a problem by

1 having it in that location. Given then that they were under contract to Mallinckrodt which 2 3 was basically a subcontract under 4 Mallinckrodt's contract to the AEC, then any 5 radiation exposure that the workers received, 6 even though it was not connected with uranium 7 is compensable. I mean it comes into their, 8 into the dose reconstruction because this is 9 radiation they received while on the job and 10 some of the work included the uranium 11 radiography. 12 For those who are unfamiliar as I was 13 until a few months ago, this is the guts of a 14 Betatron. Simply, this tube is about from here to here. It's about 18 inches. 15 This is 16 actually a medical Betatron. The only 17 difference between the medical and the 18 commercial is that it has an extra port so you 19 can get the electron beam directly out with 20 the commercial. 21 But basically, this is both the 22 injector and the target. The electrons go in, 23 and they're inside a large electromagnet. 24 They go in circles and make many, many, many 25 turns, and each time they get accelerated.

1	And eventually, they get up to the top energy,
2	which was 25 MeV, and at this point they're
3	deflected slightly. They hit a platinum
4	target and generate X-rays. So it's just like
5	a conventional X-ray machine only much higher
6	power.
7	And here are the actual Allis-Chalmer
8	Betatron at GSI. It was a photograph I think
9	taken by one of the workers and furnished to
10	us. And this is in a standby position. The
11	beam would be directed this way. So once they
12	finished marking up this casting and
13	indicating where they want to take the
14	radiograph, this swivels 90 degrees or however
15	many degrees it needs to and is directed at
16	the casting. And the film, if you hit this
17	case, the film would go inside and gets
18	exposed.
19	DR. MAURO: On that picture, where did the
20	X-rays come out of?
21	DR. ANIGSTEIN: It's not in operating
22	DR. MAURO: Where would it come out?
23	DR. ANIGSTEIN: This way. On this picture
24	it would come out this way. So you have to
25	swivel it, swivel it to get it.

1 So here are the principal sources of 2 radiation exposure which I will go through. 3 The first is the external exposure to direct 4 penetrating radiation, which means photon 5 exposure from the Betatron itself. And that 6 has some points. There is straight radiation 7 during Betatron operation. This is something 8 that goes through or around or reflected from 9 around the shielding. Obviously, nobody's in 10 the room or supposed to be in the room while 11 the Betatron is on. 12 However, when you turn off the 13 Betatron, the donut, some parts of the donut, 14 we're not quite sure which, become radioactive 15 for a very brief time. But immediately after 16 shutdown, they were measured at 15 MR per hour 17 at a distance of six feet from the target. So 18 that's a second source. If anybody approaches 19 it very shortly after the machine is turned 20 off -- and the workers were under instructions 21 to waste no time whatsoever -- they would get 22 some radiation exposure. 23 And then finally, the high energy X-24 rays can actually activate, they react with 25 the nuclei of the atoms in the metal, and they

1	can make them radioactive. So
2	DR. ZIEMER (by Telephone): Which target is
3	that 16 MR per hour reading?
4	DR. ANIGSTEIN: Say again?
5	DR. ZIEMER (by Telephone): You gave the 16
6	MR per hour
7	DR. ANIGSTEIN: Fifteen
8	DR. ZIEMER (by Telephone): value. Is
9	that
10	DR. ANIGSTEIN: One-five.
11	DR. ZIEMER (by Telephone): the target or
12	is that
13	DR. ANIGSTEIN: That is at a distance of six
14	feet from the Betatron target.
15	DR. ZIEMER (by Telephone): Six feet, okay,
16	thank you.
17	DR. ANIGSTEIN: Right, that's what was
18	reported to us.
19	MR. MARSCHKE: And it was 15 rem, Paul.
20	MR. HINNEFELD: MR, millirem.
21	MR. MARSCHKE: Fifteen MR, I'm sorry.
22	DR. ANIGSTEIN: Milliroentgen per hour.
23	MS. MUNN: And how far inside that apparatus
24	that we saw is the target actually located? I
25	mean, my point is

1	DR. ANIGSTEIN: About, about excuse me?
2	MS. MUNN: is there three feet between
3	the target and the collimated field?
4	DR. ANIGSTEIN: Less than that, less than
5	that. Probably maybe about 18 inches. I
6	think maybe more like 50 centimeters if I
7	remember correctly. The model was about 50,
8	so slightly less than two feet.
9	MS. MUNN: So if you're talking six feet
10	from the target itself
11	DR. ANIGSTEIN: It would be about four feet.
12	MS. MUNN: it would have to be within
13	approximately four feet of the actual
14	collimated beam?
15	DR. ANIGSTEIN: That's right. That's right.
16	Then in addition to the direct
17	penetrating radiation, there is beta radiation
18	from the activated metal. Then in addition,
19	they also did some radiography with Cobalt-60.
20	They had about an 80 curie source I don't
21	know how old that 80 curie source was. Maybe
22	that's when it was bought. Anyway, that's the
23	way it was spoken about that they used, and
24	the primary use for that was they would have a
25	round casting like a nuclear reactor vessel.

1 And to use the Betatron they would 2 have to shoot many times from different 3 directions or they could simply put the source 4 in the center, essentially wallpaper it from 5 the outside with film and leave it for as many 6 hours as it took. And then you could get 30 7 exposures all at once. 8 So they did that occasionally. It was 9 done occasionally, and that took place in the 10 same shooting room where the Betatron was. 11 Obviously, one or the other. They wouldn't 12 both operate at the same time. 13 Then there was internal exposure 14 potential. We have to consider intakes of activated metal dust and intakes of uranium 15 oxide. The uranium, of course, was not 16 17 machined, but it just flakes off when you 18 handle it. 19 Here is a diagram of the, what's 20 called again the new Betatron building, the 21 one that was built second. This comes from one of the FUSRAP reports. So this is a 22 23 diagram. And here is the same one translated 24 into a model for the MCNP code. It's like the 25 orientation is different. So there were

1 probably many possible orientations. We 2 considered an orientation which was 3 occasionally, ten, 15 percent of the time, 4 where again, either because the casting was 5 very heavy or just for expediency, there was a 6 railroad track that goes right up and down 7 here. 8 Sometimes they would shoot the casting 9 on the railroad track and not remove it. And 10 then they would bring the Betatron into this 11 position, and they had to do some trickery to 12 override the limit switches which supposedly 13 don't permit that, but nevertheless it was 14 done. And when that happens you have, even 15 though the beam is primarily goes forward, 16 it's not collimated in the sense of having 17 shielding all around it to make sure it goes 18 straight. It's just the nature, a very, very 19 high energy Betatron electron beam, that burns 20 shallow and goes forward but not a hundred 21 percent. It's still goes off to the side. 22 And if we notice, this area was not shielded, 23 at least that's what it indicates on this 24 report. 25 Here you see you have this shield wall

1 so there's two walls of concrete with sand in 2 between. And then it looks like there's more 3 concrete here. And then here just a thin line so I call it unshielded. We don't know what 4 5 it really was. And so I modeled it as simply 6 an open area. 7 And once you do that we can get a line 8 of sight from the Betatrons out to here. And, 9 in fact, our model, I found out that there was 10 a restroom. Number 10 Finishing Building is 11 here. And they built a little tin shed 12 adjoining the building which these workers 13 used as well as workers from the other 14 buildings. And they could be getting the 15 exposure from this sort of, scatter beam, just 16 the fringes of the beam could reach there, 17 plus the scattered radiation from the steel 18 itself. So you had that. 19 You had here was described as a break 20 And workers confirmed this was where area. 21 they sometimes took breaks. And the only 22 thing that separated the break area from the 23 main thing was just a thin, maybe eight-inch thick steel door, 16th inch probably, which at 24 25 those energies essentially is transparent to

1	radiation.
2	So here was another source of
3	radiation. The operators were fairly well
4	shielded. They would be behind this wall, and
5	even if they happened to be near the door,
6	which is just again thin steel, there would be
7	some scattered radiation but not very intense.
8	That's another view of the same, a
9	cross-sectional view.
10	MS. MUNN: Bob, I had a question when I
11	first saw this diagram. We were talking about
12	the steel casing being on the railcar, right?
13	DR. ANIGSTEIN: Some of the time.
14	MS. MUNN: And I had a couple questions.
15	One is do we have any indication of how
16	frequently that would happen? That would
17	appear to be a very infrequent event.
18	DR. ANIGSTEIN: No, I think I was told maybe
19	ten percent of the time.
20	MS. MUNN: Okay, now looking at this
21	diagram, it appears to me that the only way a
22	railcar could get into this would be to come
23	through the break area.
24	DR. ANIGSTEIN: Yeah, yeah, there was a
25	railroad track that passed right through.

1	See? Here you see the railroad track. They
2	didn't bother indicating, yeah, the railroad
3	track goes right through. When I say a
4	railroad track, it's just a narrow gauge, and
5	these are self-propelled electric cars.
6	MS. MUNN: Understand. So the break area
7	was not the kind of break area that we think
8	of ordinarily now where there would be tables
9	and chairs and
10	DR. ANIGSTEIN: No, I don't think so.
11	MS. MUNN: No, it's just
12	DR. ANIGSTEIN: Well, there was a time
13	clock. The time clock was here. They would
14	have to punch in and out for the Betatron
15	workers. They would come in here, the way
16	they described it, there would be a time clock
17	here. There was a door on this side, and then
18	from there they would go in here and the
19	office area and go to the control room.
20	There was no restriction on the
21	main thing was there was no radiological
22	control. There was radiological control here.
23	There were interlocks. If one of these doors
24	opened, they would turn off the Betatron or
25	maybe it was interlocked; there would be a red

1	light, warning horn, Betatron is on, clear out
2	of this room. So there's very little
3	possibility that anybody was in that room
4	during the shooting.
5	However, there was no radiological
6	control outside. Now what I learned later
7	after I wrote the report, and I had gotten, I
8	misunderstood some. There was a fence, a low
9	chain-link fence all the way around, and that
10	was separated, that was ten feet away from the
11	wall. So you can think of that as a security
12	fence even though it was only about this high,
13	but still if someone wants to climb over it,
14	they're really looking for trouble.
15	So I had originally listed two other
16	possible exposure locations. That's probably
17	unrealistic. There probably was not easy
18	access to that. But there was access here,
19	and there was certainly access to the restroom
20	and here in the building. So there were
21	locations where workers were not warned away.
22	Furthermore, there's two locations on
23	the roof. One worker testified that he would
24	go up on the roof to service the ventilators.
25	And I said did you communicate with the

1 Betatron operator to make sure the Betatron 2 isn't running. No, he would access it on the 3 outside of the roof of another building, and 4 the operator didn't know there was anybody up 5 on that roof. So there would be a very high dose rate up there. 6 7 MS. MUNN: Before we move the break area, 8 I'm envisioning the break area as just a large 9 shed over the railroad --10 DR. ANIGSTEIN: Correct. 11 MS. MUNN: -- that goes in, with timecards 12 and things of that sort on the wall. And when 13 you say ribbon door. 14 DR. ANIGSTEIN: Yeah, it was just like a 15 garage door. It was made of steel, steel 16 slats. 17 MS. MUNN: So it's an elevating rather than 18 19 DR. ANIGSTEIN: Right, correct. 20 MS. MUNN: -- side-to-side. 21 DR. ANIGSTEIN: An overhead door. 22 MS. MUNN: Okay, an overhead door. 23 DR. ANIGSTEIN: And they did say that 24 because the door didn't always come completely 25 down, they would even put sandbags to close

1 off the little open area underneath. But at 2 the initial -- I even saw a photograph of this 3 steel door taken in recent year, and the steel 4 itself has no radiation protection from high 5 energy photons. So putting those sandbags 6 there was just not done by somebody who had 7 knowledge about radiation protection. 8 MS. MUNN: Right, but we are talking about 9 almost exclusively scattered. 10 DR. ANIGSTEIN: Well, no, not actually. 11 Because if the Betatron was in this position, 12 the Betatron would be a tube itself. It's not 13 shielded. It's not collimated. It simply sits inside this magnet, but if the tube 14 15 magnet has a come down from either end, and 16 the tube itself, a good portion of it is in 17 the open. And therefore, according to our 18 computer simulations, we actually did the 19 complete thing where we actually irradiated --20 in the computer model -- we actually 21 irradiated a platinum target. Certainly, the 22 strongest component of the beam goes forward, 23 but there is no absolute cut-off when it goes 24 through the side. At least that was my 25 conclusion by looking at the values that it

1	was not just scattered. It actually was some
2	of the primary beam, the fringes of the
3	primary beam, the number, if you will, of the
4	primary beam, was up here. And the dose rates
5	I list here. If this thing is on the railroad
6	track, and you're in the control room maybe
7	just waiting to get out for the next shot just
8	like one meter inside the steel door, dose
9	rate of 2.6 MR per hour, which is not highly
10	dangerous, and we have to consider that it's
11	not on all the time. I calculated it has
12	about 41 percent duty cycle because most of
13	the time it's setting up for the next shot.
14	However, in the break area if somebody
15	happened to be just inside the door, you have
16	24 MR per hour. Here at this location in the
17	10 Building, 8.6 and then in the restroom,
18	because it was more, at a smaller angle, it
19	was closer to the perpendicular to the
20	direction of the beam than the others, it was
21	22. So the break area was nearer but it was
22	further. It was almost at a 90 degree angle.
23	So here at this corner of the restroom it was
24	And we're told also that some of the
25	workers would hide out in the restroom.

1 MR. PRESLEY: How far away was the restroom? 2 DR. ANIGSTEIN: Well, this is the scale 3 here, so this is ten feet. I mean I can't 4 tell you right at this moment. That's sort of 5 estimated. 6 MR. PRESLEY: So we're looking at least 7 eight feet. 8 DR. ANIGSTEIN: Yeah, correct. 9 So, and then on the roof at the time, 10 just above the steel castings. The exposure 11 rate was 208 MR per hour, and I think if I had 12 moved it, the location a little directly over 13 the Betatron instead of directly over casting 14 it might even have been higher, not by a huge 15 amount. 16 So then we go on to the activated, 17 exposure to the Betatron apparatus. This is 18 during the set-up time. While they're 19 adjusting the ^ from the Betatron, marking up the locations on the casting, and again, 20 21 according to the workers, for the heavy 22 castings, the thick ones, they would give, I 23 think they were over six inches thicker, over 24 six inches of steel in all the uranium slices, 25 they would be casting for six feet from the

1	internal Betatron target.
2	They actually had a string that was
3	marked six feet and nine feet. Mistakenly, I
4	thought at first that meant from the outside
5	of the apparatus. No, it was already, was
6	attached to the outside of the apparatus, but
7	the string was calibrated from the internal
8	Betatron target.
9	So if the casting is six feet away,
10	the worker can't be six feet away. He could
11	be nearer, could be in between. One worker
12	will be on the other side, and one worker
13	would be on the Betatron side. So just figure
14	it could be between three and six feet, and we
15	just calculated like he was going back and
16	forth uniformly and integrated over the
17	exposure over that distance.
18	Sorry, this is if they were nine feet
19	away. Some of the shots were nine, forgive
20	me. Some of the thinner metal was shot at a
21	distance of nine feet. So figure, the worker
22	obviously got inside the metal three to six
23	feet. Then if the metal was six feet, then he
24	would be at three feet. That's just sort of
25	approximations that we made.

1 So this is one point of this agreement 2 we have with the NIOSH analysis which assumed 3 that the worker's always at six feet, or at 4 least they use that, the measured value at six 5 feet to assign the radiation exposure to the 6 Betatron operator during the set up. Also, by 7 interviewing workers we found we got a little 8 better idea of the actual time and motion. 9 And that would be the 90 percent of the shots, 10 not 90 percent of the time. It was 64 percent 11 of the time they were what we called short 12 shots. 13 And a typical short shot would be 14 three minutes of exposure, 11 minutes of set-15 up time, one minute going back and forth to 16 the control room. So they would spend a lot 17 more time in the Betatron room than was 18 assumed in the NIOSH analysis. Then the other 19 ten percent, which is 36 percent of the time 20 because they're longer. Obviously, they take 21 longer. There would be the six foot metal-to-22 target distance and the operator was at three 23 feet. 24 Of course, the exposure time increases 25 the closer you are. So the exposures, the

1 bottom line is our assessment of the exposure 2 to the Betatron apparatus is that we get 34, 3 35 MR for the eight-hour shift if they're only 4 doing short shots and about 13 MR per hour for 5 an eight-hour shift if they're only doing long 6 shots as opposed to the NIOSH estimate which 7 is 3.2 MR for an eight-hour shift. They 8 didn't report ^ they 0.81 per shot when each 9 shot was two hours. 10 So that's two kinds of disagreement. 11 One is the duration, and the other one is the 12 location of the worker. 13 MS. MUNN: In your discussion with the 14 workers, was the indication that once the shot 15 was complete, the Betatron was left in its 16 position. It was not -- for example, the 17 photograph that we just saw. The Betatron was 18 in the position that one normally sees safe 19 operation for, that is to say pointing 20 downward --21 DR. ANIGSTEIN: I hear you. 22 MS. MUNN: -- and normally when it was 23 operating, it probably would be, as you 24 indicated earlier, at a 90 degree angle rather 25 than pointing down. So in your conversations

1 with the worker was it their memory that it 2 was left in position for activity and at the 3 end of the shot it was not returned to its 4 what we would think of as safe downward 5 position? 6 DR. ANIGSTEIN: If they were bringing in a 7 new casting, they would probably be moving the 8 Betatron out of the way. You don't want to 9 have a collision between the Betatron and the 10 casting. But one casting might require many 11 shots, might require a hundred shots, might 12 require 30 shots. And they would simply move 13 from one, typically, the largest X-ray film 14 available is 14-by-17 inches. It's commonly used today like a chest film. 15 16 So they would simply set up the shot 17 here, then run to the control room, fire, wait 18 until it's over, come back, move it over 19 eight, 12 inches, 14 inches. They would allow 20 about a three-inch overlap between the shots 21 and go back so it wouldn't make any sense for 22 them to be swiveling it out of the way. They 23 would just be translating it back and forth, 24 up and down in between those many shots. 25 MR. PRESLEY: Didn't the Betatron have a

1 window that was closed on it after the shot 2 was taken? 3 DR. ANIGSTEIN: No, there was no window on 4 the industrial Betatrons. There was no shield 5 and no window. 6 MR. PRESLEY: What about, how long did the 7 15 MR, how long did that last? 8 DR. ANIGSTEIN: Well, according to the 9 person who took the measurements, Jack 10 Scheutz, who worked for the Allis-Chalmers 11 Company and then was actually contracted by 12 NIOSH to write a report on his work, he said when I interviewed him that 15 minutes was 13 14 essentially zero. So we kind of said you 15 can't really, in the kind of exponential decay 16 you can't deal with zero. So I said maybe 15 17 microR because the background is about ten 18 normally. So he said, yeah, that sounds 19 reasonable. 20 So we calculated assuming that it goes 21 down by a factor of a thousand in 15 minutes. 22 So the exposure is really only during the 23 first few minutes. After that it doesn't 24 really matter whether you're in there 15

minutes or two hours because there'll be very

25

1	little additional
2	MR. PRESLEY: When you talked to these
3	people, did they tell that they went in just
4	immediately after the shot
5	DR. ANIGSTEIN: Yes, absolutely. They said
6	basically there was a ^ over their heads and
7	the whole thing was maximum turnaround time.
8	Because until they finished all the
9	radiographs, they couldn't send the casting
10	back to the plant to be repaired, and they
11	were repaired and radiographed again.
12	And the trigger was for each casting
13	they ship out it goes on the books as a
14	shipped casting and you get a bonus. So the
15	workers, they want to get that little extra
16	pay for each, get like a commission. I don't
17	know who got the commission, but there was
18	some pay incentive to get them out quickly.
19	MR. PRESLEY: Did anybody talk about how
20	that they repaired those castings?
21	DR. ANIGSTEIN: Yeah, yeah, they would
22	repair them I guess with hammers and chisels,
23	chipping them away with some kind of
24	electrical power grinder, also with a torch,
25	burning it away. They would burn the metal

1	away. They had three different mechanisms.
2	The called it chipping, grinding and burning.
3	And then the welder would come in and put, you
4	know, bring in fresh metal.
5	So either a burning torch or a welding
6	torch, it might have even been one and the
7	same but with a different adjustment of the
8	flame at any rate. So they were there. They
9	were very close. They were working probably
10	in a cloud of dust from the metal. However,
11	as it happens well, I'll get to that. Let
12	me just do that in a minute because that's my
13	next; I don't want to jump ahead here.
14	So the next thing we had to look at
15	was the radiation from the irradiated steel
16	because the steel then becomes radioactive. A
17	complex I didn't put it up here, but it's
18	in the report. It's a complex curve because
19	it has short-lived nuclides. It has a whole
20	bunch of radionuclides. Some of them are very
21	short-lived, some of them are longer. So
22	immediately after the shot the short-lived
23	ones predominate, and later on you get the
24	long ones.
25	But what NIOSH did was simply, they

1	just assumed that all the activation was Iron-
2	53, which would be true if it was pure iron.
3	But in reality they were doing many alloys.
4	We just picked HY-80 as a representative alloy
5	from ^. And this has a fair amount of
6	manganese and other alloy and elements in it.
7	And so we also had the advantage of a very
8	recently released code which did that
9	precisely. So it's still not a huge effect.
10	So their estimate would be 0.21 per
11	shift. Our estimate, considering all the
12	different types of exposure, the long shots,
13	the short shots and using the same assumptions
14	that NIOSH used, which we had no reason to
15	disagree with. The worker would spend part of
16	the time one foot from the metal. Part of the
17	time one meter from the metal. So we came out
18	with a little over twice as much. Still,
19	these are not very high numbers.
20	Then the next thing was when they did
21	the uranium, and they would use uranium
22	slices. They would typically, they would do
23	four shots. You had this maximum 18-inch
24	disc, and the film is only 14 inches wide.
25	You can't get the whole disc, and also they

like overlaps. So they would do as many as four shots. So using that model, so that's how we did it. However, they used an earlier version of the code, not that it was a problem, but they had to do it in several steps. And Sam Glover, who did the calculations, was kind enough to share his input files with me. And

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Richard Ulsher, who recently retired from Los Alamos, who's an expert on this.

I shared them in turn with my colleague,

And there was a mistake in his input file. And as a result the exposure from the uranium was very much overstated. So our calculation shows that per shift it's 6.8 millirem with 86.8 per shift assuming four shots per shift in the NIOSH calculation. So there is a compensating effect there.

19And this is just a roll up of all the20external exposures. So I'm not ^ just in red21I marked what is really the salient fact.22DR. BRANCHE: Bob, would you speak up a23little bit, please?24DR. ANIGSTEIN: I'm sorry.25DR. BRANCHE: And actually, if the people on

1 the phone could please make sure your phone is 2 on mute. Sorry about that. 3 DR. ANIGSTEIN: I guess I'm turning to the -4 - maybe what I'll do is I'll simply look at my 5 screen here, then I can face the microphone. 6 MS. MUNN: Great. 7 DR. BRANCHE: I think that would help. 8 DR. ANIGSTEIN: So basically for each type 9 of scenario you have three components. Those 10 they get in the control room while the 11 Betatron is on and were simply monitoring the 12 controls. The dose that you get from the 13 metal during the set up. 14 And the dose that you get from the 15 radioactive donut. And you see that was by 16 far predominates. For the steel shots it 17 predominates. For the uranium shots the metal 18 becomes more radioactive so it becomes 19 comparable to the others but still smaller. 20 And this is the wrap up, and it turns 21 out that the steel, radiographing the steel is 22 actually giving slightly greater exposure than 23 if they only radiographed uranium. So 24 therefore, the issue of how much uranium was 25 really done at any given time really fades

1	away. The two are very close.
2	And then there's also the old I
3	told you there was a new machine and the old
4	one, and there was a slight difference in the
5	power, and also it was further away. The $^{\sim}$
6	was a little different. The power was a
7	little less so they get a little less exposure
8	from that one.
9	Annual exposures, one thing, one big
10	difference is the workers consulting among
11	themselves in their different impressions
12	agreed that 65 hours a week was a reasonable
13	time. One of them said I always worked three
14	extra shifts. I mean, there were five plus
15	three so that would be 64 hours, so 64, 65.
16	Some of them said we worked as much as 80, but
17	we agreed that 65 would be a reasonable
18	consensus estimate.
19	So this comes out to 406 shifts a
20	year. And based on the exposure to the new
21	Betatron, they would get 13.6 R Roentgens per
22	year. And also they got a neutron dose which
23	was not calculated by NIOSH. And the
24	Betatron, while it's running, gives off
25	neutrons. Not in its post, you know, when

it's dying down there are no neutrons that we know of.

But there were definitely neutrons coming out from that target just like X-rays coming out from it. So they would get, the neutron dose is small compared to the photon dose, but still it's there. Then also we directly calculated using the MCNP Code the dose to the beta radiation from the residual radioactivity, the residual radionuclides. And from the uranium is by far the most significant because you get a couple of short, not from the fission ^ from the activations. You get a couple of short-lived uranium isotopes because U-239 and U-237, which are strong beta emitters. They don't stick around very long. ^ is minutes ^ is hours.

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18 So the basic summary which I think is 19 the bottom line is that for the years our estimate with external exposure is essentially 20 21 twice the estimate of NIOSH. And the two 22 countervailing factors is they have less 23 exposure from the Betatron, but they have 24 exposure from the uranium which is overstated. 25 So from '52 to '61 to '62 the difference is a

factor of two. Then from '63 on, they're 1 2 still doing, there's less uranium, but they're 3 still doing the steel. 4 So they're still getting the same 5 amount of radiation exposure, whereas 6 according to NIOSH because they're doing less 7 uranium, they get much less. So now we have a 8 ratio, we have a difference between the two 9 analyses ^ ratio a factor of two to a factor 10 of six. Again, the neutron dose was episodic 11 count for the skin dose. Again, we have 12 higher, somewhat higher, not markedly so 13 except in the final years. 14 Then according to the NIOSH analysis 15 the Cobalt-60 radiography was unimportant 16 because it was bounded by the Betatron. And 17 we found that's not always the case. Because 18 we got information from one of the workers who 19 was actually in charge of doing that 20 radiography with that 80 curies source. 21 And he gave me a description which we 22 put into the model, and yet by far if there 23 should be somebody -- and again, it's probably 24 not a common occurrence -- but if somebody should have been on the roof at the time that 25

1	this 80 curies cobalt source was wide open,
2	and even though it was inside the steel
3	casting but it would be open on top, he'd be
4	getting very, very high radiation exposure,
5	over 900 milliroentgens per hour.
6	Then furthermore, they also had a
7	small source. You had an 80 curie source.
8	You had 150 millicurie, ^ source so that must
9	be much less important. But that was not in a
10	shielded area. That was just in the plant.
11	They had a little cinder-block structure,
12	whole cinder block, that was almost
13	transparent to that radiation.
14	So anyone hanging around outside could
15	get significant doses, up to 17 MR per hour.
16	Have no information as to how often it was
17	used, who were the people there. They didn't
18	even, the people I talked to were not the ones
19	who did that. So they had seen the building,
20	that little structure.
21	Then to answer Bob Presley's question
22	about the repair on it. So they would have
23	the grinding, chipping, burning and then
24	welding of the activated steel; it happens,
25	and I'm surprised at the results, there is

1	very, very little radiation dose. And the
2	reason is these are short-lived radionuclides.
3	And the internal dose from any
4	radionuclide, the ^ nuclide, is when they
5	stick around in the body for years. Radium,
6	you know, never leaves the body for instance.
7	You can die and the radium is still in your
8	bones. These simply don't give very much dose
9	even though there is some activity. There's
10	enough activity there that they give external
11	dose. But once you take it in, it goes away
12	very quickly.
13	So NIOSH, we agree with, we concur
14	with NIOSH. They said it was less than one
15	millirem per year. We actually calculated it
16	was less than a tenth of a millirem per year.
17	So it's just not an issue.
18	The uranium dust we calculated simply
19	the radioactive contribution, but the induced
20	radioactivity in the uranium. And it's
21	completely insignificant compared to the
22	activity of the uranium itself. Whether you
23	inhale the uranium dust from an ingot that's
24	been irradiated or from one before it's
25	irradiated, there's no difference in dose.

1 The difference is like on the order of one 2 part in a million. 3 However, we took exception, and that's 4 in our review of TBD-6000, but that's where 5 they got their uranium dust intakes from. We take exception with the way the resuspension 6 7 was calculated. We think that the uranium 8 concentration in the air during the handling 9 of the uranium was a reasonable claimant favorable estimate. But the amount that was 10 11 in between those fairly infrequent operations 12 we think was understated. And I'm not going to go into that because that's described by 13 14 6000. 15 MS. MUNN: We'll get into that when we get 16 into our matrix. 17 DR. ANIGSTEIN: Yeah, okay. 18 And then finally, we disagree, we have 19 a question about the covered period. And 20 NIOSH assumed, and I guess the DOL assumed, 21 that the covered period started through 22 January '53 because there was a, during one of 23 the correspondence at DOE during the FUSREP 24 authorization, they simply casually referred 25 to, oh yes, there were uranium operations

1	starting in the 1950s, from 1953 on.
2	However, there is a memo and I'll
3	show that on this screen. So this seemed to
4	be based, so this was this, in the material
5	that was passed out to us from NIOSH and the
6	DOE is this memo. And it clearly indicates
7	that uranium ingots had been I call it an
8	ingot. I think it was slices of ingots had
9	been furnished to General Steel Casting it was
10	then called, for a Betatron. And up here,
11	very clear, if you look at the typewritten
12	date, it looks to be 1953.
13	Now someone had hand-corrected it and
14	made it a two. And it seems entirely
15	plausible that the typist had made a mistake.
16	Maybe she was thinking '53 is coming up
17	already and typed and somebody went back and
18	corrected it to '52. So if this memo was
19	written in December '52, that means that this
20	process was already going on.
21	And the plausibility of that
22	assumption is The Betatron was installed
23	in January '52. We know that because there's
24	actually a clipping from the local Granite
25	City newspaper and that was probably a

1	publicity handout from the company saying we
2	now have this Betatron. It was dated in
3	January. It was already up and running or in
4	the process of being turned on.
5	And so it was put in by the Army, and
6	here it was Mallinckrodt across the river
7	already producing the uranium ingots. It
8	would seem reasonable they would take
9	advantage of this. They wouldn't necessarily
10	take a year to, before they, they're going to
11	do it, they're going to do it right away.
12	That just seems plausible.
13	Again, there's no proof. But that and
14	the memo makes us think that the claimant
15	favorable assumption would be say that this
16	operation, in fact, started in January of '52,
17	and use that year as covered employment in
18	case there should be any claimants who were
19	working there that year.
20	So that's, and then the conclusions
21	finally are that the external exposures that
22	we estimate are higher than those by NIOSH and
23	particularly so in later years. From '61 to
24	'66 year-by-year we go higher because we're
25	still using the steel, whereas NIOSH took by

1	accident having overestimated exposures from
2	the uranium, came up with high numbers,
3	relatively high numbers at the beginning.
4	But then when they correctly assume
5	that the uranium radiography was going down
6	because we have, for years from 1958 on we
7	have purchase orders saying how the dollar
8	amount that allowed, that GSI was allowed to
9	charge Mallinckrodt and how much per hour they
10	could charge.
11	Divide one by the other and you get
12	how many hours exposure. And that steadily
13	goes down year by year so even by a six-month
14	period. But the steel does not go down, just
15	the opposite. Any they're doing more steel
16	but they weren't doing uranium.
17	And as a matter of fact the contract
18	had an oddity in it. Maybe because they
19	didn't want to be charged for shift work, they
20	specifically said that the uranium radiography
21	should be done Monday through Friday between
22	seven to five or eight to five or something
23	like that.
24	So if you want to say what about the
25	worker doing the steel, well, that could be

1 worked in an evening shift, the night shift. 2 They ran three shifts, three shifts and at 3 least six days a year, six days a week. So 4 those workers who would still get some 5 exposure to the uranium -- anyway, that's how 6 we made this estimate. 7 So we said that the skin we believe 8 was higher, somewhat higher. The uranium dust 9 intakes we believe may have been higher. The 10 dose rates from the exposure to Cobalt-60 11 should be considered and the date. So that's 12 essentially a very brief summary of my 90-page 13 report. 14 Thank you, Bob. That I think, MS. MUNN: 15 hopefully, gives us all a better feel of what 16 we're going to be looking at when we start to 17 look at the matrix now. 18 To begin with the matrix we've all had 19 it in hand. I don't know how many of us have 20 had an opportunity to absorb what's in it. 21 Since they are SC&A's findings --22 DR. ANIGSTEIN: Excuse me. I can put that 23 on the screen if you like. Would that be of 24 any help? 25 MS. MUNN: Does everyone here have their

1	hard copy?
2	I think everyone here has a hard copy.
3	Hopefully, the folks on the telephone have
4	their electronic copy.
5	These are SC&A's findings so I'll
6	leave it to SC&A to present them to us one at
7	a time, and we can make our own decisions as
8	to whether or not NIOSH wants to discuss those
9	with them here or whether we're going to need
10	a technical call to do that at another time.
11	John or Bob, whichever of you is
12	DR. ANIGSTEIN: I wrote these so basically I
13	simply cribbed from the executive summary of
14	the report.
15	DR. ZIEMER (by Telephone): Wanda, could I
16	ask a question before we get into the matrix?
17	MS. MUNN: Certainly, Paul.
18	DR. ZIEMER (by Telephone): This is just a
19	piece of information. I may have missed it in
20	the written SC&A report, but did the start
21	date for the use of the 80 curie source go
22	back to '53 as well? Did you establish a
23	start date on that source?
24	DR. ANIGSTEIN: No, the worker I interviewed
25	started around '61 or something like that. He

1	did not know. I asked him when was the source
2	purchased, and he did not know. I was not
3	able to
4	DR. ZIEMER (by Telephone): So it was
5	already there though in '61 at least.
6	DR. ANIGSTEIN: I think it was '61. It was
7	the early `60s. I'm just going by memory now.
8	I have my notes.
9	DR. ZIEMER (by Telephone): And do we have
10	an end date on that source? Was it used, was
11	there any point at which it was returned or
12	did it continue to be there throughout the
13	whole period in question?
14	DR. ANIGSTEIN: No, it belonged to GSI so
15	DR. ZIEMER (by Telephone): It remained
16	there during the whole period.
17	DR. ANIGSTEIN: Yes, that is correct.
18	So these are basically criticisms of
19	the report not all of which well, directly
20	or indirectly they would affect the dose
21	reconstruction, the dose assessment. So the
22	first one is completeness of data sources.
23	There was some just findings that the report
24	was incomplete.
25	This is something that some of the

1 claimants who, advocates for the claimants, 2 they criticize the reports. And that was they 3 keep talking about one Betatron. In fact, 4 there were two Betatrons, which is true from 5 1963 through 1966 -- sorry, basically '65, 6 January of '64 the second Betatron was 7 installed. So that is correct. This is an 8 omission which makes the report, the NIOSH 9 report, incomplete is the best way of putting 10 it. 11 Then again, issue two is the period of 12 covered employment. I've already talked about 13 that. 14 MS. MUNN: Before we go away from issue one, 15 Stu, we haven't asked NIOSH to look at these 16 and to begin to pull together responses. Do 17 you have any responses or any commentary that 18 you want to throw out on the table as we're 19 going through these or would you prefer to 20 wait for written response or how would --21 MR. HINNEFELD: We are preparing responses 22 so I'm not ready to talk about any today. 23 I'll just get it out of the way now and make 24 one comment about the covered period. We'll 25 provide, we can provide the document to the

1 DOL to see if they want to change the covered 2 period, but it's not within our authority to 3 change the covered period outside what is 4 designated as covered. 5 MS. MUNN: With each of these findings if 6 you have any comment to make, please do as Bob 7 has gone through them. 8 MR. HINNEFELD: All right. I doubt that I 9 will. Like I said, we're working on preparing 10 responses. 11 MS. MUNN: Fine, thank you. 12 DR. ANIGSTEIN: Issue three, the --13 MS. MUNN: Well, did we do two? 14 DR. ANIGSTEIN: That's the period of 15 covered, I basically covered that. 16 MS. MUNN: Yes. 17 DR. ANIGSTEIN: Issue three is they simply 18 state that the Betatron beam intensity was 100 19 R per minute and that was simply an error. 20 Because I actually read the report that was 21 submitted to NIOSH by Mr. Scheutz formerly 22 from the, I guess he is the successor to the 23 Allis-Chalmer Company. He's the only person 24 who continues to serve the Allis-Chalmer 25 Betatrons, the three that still remain in

operation.

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2 And there's actually a table, which is 3 not shown here but was in the report, which he 4 furnished, and I simply copied it and reduced 5 it, which shows that the Betatron tubes, 6 because the tubes were not made by Allis 7 Chalmers. They were made by a company called 8 Miklin that used to make X-ray tubes. And 9 they would send them to Allis-Chalmer. And 10 Allis-Chalmer would then test them before they 11 would accept them. 12 And the acceptance criteria, the minimum, was 200 MR per hour. And the ones 13 14 that he actually tested were closer to 300. 15 So 100 may have been the very early ones but 16 certainly not the ones of the time during when 17 this second 25 MeV Betatron was operating. So 18 as I said they go up to 282. So we decided 19 based on information we got from the workers 20 who remembered the manual, the instructions, 21 the 250 MR per minute was much more likely to 22 be an accurate, claimant favorable assumption. 23 DR. ZIEMER (by Telephone): Do we know how 24 that was measured? 25 DR. ANIGSTEIN: Yes, we do. Allis-Chalmer

1 had a published procedure in their manual 2 where they set up a Victorine ionization 3 chamber at a distance of six feet just to make 4 things a little more complicated. 5 DR. ZIEMER (by Telephone): So the reason I 6 ask that question is because the definition of 7 the Roentgen is dependent on electronic 8 equilibrium, and you rarely have that at these 9 high energies. I want to make sure, and I 10 wondered if you had looked at that procedure. 11 These could even be lower or too low. 12 DR. ANIGSTEIN: I did. It would take a 13 standard Victorine ionization chamber, simple 14 ionization chamber, and then they actually 15 give an engineering drawing of a large Lucite, 16 hollowed Lucite cylinder, that acts as a 17 equilibration shield. It goes, the Victorine 18 chamber goes inside a hole --19 DR. ZIEMER (by Telephone): Inside an 20 equilibrium --21 DR. ANIGSTEIN: Right, exactly. 22 DR. ZIEMER (by Telephone): -- sleeve 23 basically --24 DR. ANIGSTEIN: Exactly. Now it is entirely 25 correct that the Roentgen is not even defined

1	for energies above ten
2	DR. ZIEMER (by Telephone): Ten MeV.
3	DR. ANIGSTEIN: Ten MeV. So this is sort of
4	like an extrapolation of that concept. But
5	anyway, whatever it was
6	DR. ZIEMER (by Telephone): I want to make
7	sure that they at least had those sleeves on
8	it.
9	DR. ANIGSTEIN: Yes, they did have the
10	sleeve, and they measured it at six feet, but
11	they used a 25 Roentgen chamber and put it
12	into a 100 Roentgen reader. So basically
13	multiplied it by four to make up for that
14	distance. This is their published procedure.
15	Finding number four is the stray
16	radiation which we found could be very, very
17	significant, and which according to Appendix
18	BB, the maximum was 0.72 MR, millirems per
19	hour. I don't know what the model of the
20	Betatron, that the Betatron building they used
21	was or they counted for the open passageway,
22	the lack of shielding in some of it. They did
23	not give a description. I didn't ask for it.
24	I'm not saying they refused to give it. But
25	it definitely was much higher.

1 But the significance of this, which I 2 perhaps didn't emphasize in my slide talk is 3 we have, we -- SC&A, we think we've got a 4 pretty good handle on the exposures to the 5 Betatron operator probably on the conservative 6 side, the claimant favorable side. We know 7 where he was. How much time he spent. We 8 have four Betatron operators which he wrote us 9 a memo after conferring with each other and 10 said, yes, this is the best recollection of a 11 typical operation. 12 However, the other locations where 13 people other than the Betatron operators were 14 just plant workers using the restroom, being 15 outside, being in the break room. We have no 16 idea of how much time they spent there; who 17 they were. Whether they were the some ones. 18 So there is radiation to a potentially 19 significant radiation to other workers that we 20 don't have a firm... 21 MS. MUNN: Was this restroom outside or 22 inside the chain link fence that you 23 mentioned? 24 DR. ANIGSTEIN: That restroom was directly 25 accessible from inside this Number 10

Finishing Building. The chain link fence was around the Betatron Building that was sort of an appendage to this Number 10 Finishing Building. This long shed.

MS. MUNN: So it was accessible to the Number 10 Finishing Plant, but that would outside of the chain link fence.

8 DR. ANIGSTEIN: It was outside the chain 9 link fence. The chain link fence that 10 surrounded the Betatron Building, the way one 11 of the people explained to me, the real 12 purpose of it was, I think it was for security 13 to keep people from going in and pilfering something. There would be a parking area. 14 15 They didn't want somebody robbing their car. 16 And, of course, the concrete wall, they didn't 17 worry much about it. But at any rate, yeah, 18 it was just, I don't know if it was for 19 radiation safety purposes or just security purposes, convenient. 20 21

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But, yeah, the restroom they would go into the, so if the Betatron worker wanted to use the restroom, he would have to go through that rail tunnel, which was also the break area, go into the building and then walk a

1	little distance, and then go through the door.
2	And then later, even though we were
3	not soliciting it, we would keep getting some
4	additional, oh, by the way, I forgot to tell
5	you sort of thing. And it pointed out that
6	there was in this Number 10 Finishing
7	Building, it was higher. It had a peaked
8	roof, was a little bit higher than the
9	Betatron Building.
10	And the thing about the Betatron
11	Building is according to I mean, I just saw
12	a photograph. I don't have an elevation plan
13	from General Steel Industries. I do have the
14	horizontal, the layout. But the Allis-Chalmer
15	manual gives detailed instructions how to
16	build the building. They don't build the
17	buildings. They just furnish the Betatron,
18	but they give you detailed drawings, and it
19	seemed to me that they were followed.
20	So the building is about 37, 38 feet
21	high but only the first 20 feet are shielded.
22	After that it's just metal or maybe a thin
23	layer of concrete. Whereas, the higher part
24	of the Number 10 Finishing Building is higher
25	than 20 feet.

1 And it was pointed out they would have 2 an overhead crane to be obviously as high as 3 possible because you want to get it out of the 4 way of the operations, which ran the length of 5 this Number 10 Building, and the operator 6 would ride on that crane. 7 So it's conceivable, plausible that 8 the operator if he had X-ray vision could have 9 looked straight into the Betatron Building and 10 over the shield wall. So that there could 11 have been some exposure as he was going back 12 and forth in addition to the workers who 13 happened to be in that area where it was not 14 shielded from the side. 15 So you had a lot of places where there 16 were poorly shielded areas which, I guess, I 17 don't want to make a value judgment, but the 18 first building that was built by the Army 19 Corps seemed to take that into consideration. 20 That is the nearest other building 250 feet 21 away, and that's already a storage building 22 probably, not very well inhabited. Whereas, 23 this building they deliberately built right 24 close to their main operations for 25 convenience.

1 Anyway, this radiation --2 DR. ZIEMER (by Telephone): But those are 3 still calculable from scatter calculations and 4 distances surely. 5 DR. ANIGSTEIN: They certainly are except that -- and we did calculate some of them, 6 7 except that we have no good sense of the, what 8 workers, the duties of the workers which would 9 place them in those locations. 10 DR. ZIEMER (by Telephone): Yeah. 11 DR. ANIGSTEIN: That's where the problem is. 12 DR. ZIEMER (by Telephone): But I think you 13 can bound the dose rates in those areas. DR. ANIGSTEIN: Oh, yeah, sure, I mean, you 14 15 can say they were there eight hours a day. That would be the maximum. In which case that 16 17 would become then the limiting dose. It would 18 be higher than the dose to the Betatron 19 operators who were always in the control room 20 reasonably well shielded during the, while the 21 Betatron was on. 22 DR. ZIEMER (by Telephone): Well, I guess I 23 wouldn't assume that a priori because this is 24 fairly common on industrial facilities where 25 you have sky shine and scatter to other areas.

I mean, the percent of the main beam that scatters in any given direction is a very small fraction.

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DR. ANIGSTEIN: No, I'm saying that in the -- I'm not sure I understood your comment. We calculated the doses, the dose rates in the control room. And these dose rates in these other areas can be ten times as high, a hundred times as high as the dose in the control room, the dose rate in the control room. For instance, the dose rate on the roof was 200 as opposed to the maximum rate of 2point-something in the control room.

MS. MUNN: The angle of incidence into the Number 10 Building would have to be pretty steep if it is going above a 20-foot wall. And one would have to have some knowledge of how near to the end of the Number 10 Building the overhead crane rails actually extended.

20DR. ANIGSTEIN: Oh, it went from end to end,21and the Betatron Building was in the center of22it, but near the middle of the Number 1023Building, and the crane went from end to end.24MS. MUNN: Yes, but you see what I mean25about the angle of incidence being over the

1	20-foot wall would have to be
2	DR. ANIGSTEIN: Well, I did not calculate
3	that particular location because we can, but
4	it would still be, I'm just saying this is
5	just a
6	MS. MUNN: It's one more thing to take into
7	consideration.
8	DR. ANIGSTEIN: Yes, exactly.
9	DR. MAURO: So what I'm hearing from you
10	Bob, you have the MR per hour, the question is
11	we don't know how many hours per day, how many
12	hours per year
13	DR. ANIGSTEIN: Exactly.
14	DR. MAURO: and that's going to be
15	important especially if the MR per hour at
16	these other locations could be as much as ten
17	times higher than let's say at some of the
18	locations where the Betatron operators stayed.
19	DR. ANIGSTEIN: Exactly, that's the basic
20	point.
21	Okay?
22	MS. MUNN: Yeah, I'm fine.
23	DR. ANIGSTEIN: And then the other issue,
24	which again I talked about here, is the
25	radiography, the Cobalt-60 sources can be

1	significant as much as 960 millirem per hour
2	on the roof of the building if it so happened,
3	again, this is infrequent because the worker
4	who serviced the ventilators said he did that
5	about twice a year and spent about half an
6	hour.
7	Now if he happened to be up there
8	while this 80 curie source was in use, he
9	could get in that half hour 500 MR. Now I'm
10	not saying that's very probable. That's a
11	coincidence, but there is a potential there.
12	Over the years it could have happened. And
13	then in other locations again all of these
14	places, the Betatron operator is probably the
15	safe guy because here you could get 12-16
16	millirem per hour from that. I think that
17	NIOSH should retract it. Some of that may
18	have been from inside the chain link fence
19	which I didn't know was there. From the 250
20	millicurie source you could have, I think, 17
21	millirem per hour outside that room where the
22	source was in use.
23	DR. ZIEMER (by Telephone): On this source,
24	were you able to confirm that they leak tested
25	this on a regular basis? Do we know that?

1 DR. ANIGSTEIN: No information whatsoever on 2 that. The only thing we know is that there 3 was a news release showing that some of the 4 workers, a portrait of the workers, and saying 5 they have gotten, they were in isotope training. In other words they actually took 6 7 an approved course so that they could be 8 licensed by the AEC to be isotope operators. 9 The Betatron was not controlled by the AEC so 10 there was no licensing on that. 11 DR. ZIEMER (by Telephone): Right. 12 DR. ANIGSTEIN: But to be able to use the 13 cobalt source, they had to be licensed so you 14 had these people. So what that meant, whether 15 they had, they had someone, and I spoke to him, was a radiation safety supervisor, but he 16 17 did not seem very familiar with the source. 18 He used the source, but as far, he 19 couldn't even tell me what the decay activity 20 I said when was it purchased? When was was. 21 it calibrated so we know over the years what its strength was? He couldn't tell me. 22 He 23 did not seem to take into account that cobalt has a five year half life. So I have no idea. 24 25 DR. ZIEMER (by Telephone): Normally, they'd

have to adjust their exposures for that I would think.

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DR. ANIGSTEIN: Yes, they would, and they may have.

DR. ZIEMER (by Telephone): We don't know for sure that it was leak tested, although if this was under an AEC license, it almost surely had to be. I mean, that would have been a license requirement. The reason I asked that question was did anybody ever check that facility for cobalt contamination?

12 DR. ANIGSTEIN: I would guess only when the 13 ORISE or Bechtel, when they did the clean up 14 in 1987, I think initially was the first time 15 they made an inspection, they would have 16 checked for that. But now we're talking about 17 the source that might have been 30 years old, 18 20, 30 years old, so even if there was any 19 cobalt there would have been considerable decay. But, no, that was never, we have no 20 21 information on that. 22 DR. ZIEMER (by Telephone): Sorry to get off 23 the track there. 24 DR. ANIGSTEIN: No, no, no, that's a very 25 good question. Thank you, that never occurred to me.

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2 Another issue six is they never, 3 Appendix BB does not mention beta radiation from activated steel. We found that the 4 5 irradiated steel gives about two rads to the 6 most exposed workers, gives two rads per year 7 to skin. Of course, the skin itself would get 8 more dose from the penetrating radiation, but 9 nevertheless it's a factor. I think for 10 completeness it should have been included. 11 Again, the activated Betatron 12 apparatus I talked about extensively in my 13 slide show so the main argument just to put it 14 succinctly is that we think it could have, 15 instead of using the 15 millirem per hour, 16 milliroentgen per hour, that the Appendix BB 17 used and they also assumed the decay rate that 18 wasn't constant by starting off with 15. It 19 could have been as much as 60 if the person 20 was three feet away instead of six feet away. 21 We actually used a steeper decay curve so the 22 integrated rate would have been not 23 proportional, that's high. 24 And then the work week, that's self-25 evident, the workers were fairly confident

that they worked a lot of overtime. In fact one of the supervisors told them like anyone who's not getting enough overtime just come and see me because I've got plenty to give away. And one of the workers even commented during his group interview -- we talked about this in large amounts -- he said there were divorces, and they all seemed to agree with this.

MS. MUNN: It sounds as though almost everyone appeared to have worked certainly additional shifts routinely not just once in awhile.

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14DR. ANIGSTEIN: Oh, no, they said it was the15norm, at least for these Betatron workers16because this was, it was the bottleneck.

17MR. MARSCHKE: This would be for like the18Betatron workers not necessarily for people in19the break room or the restrooms or --

DR. ANIGSTEIN: We don't know.

MR. MARSCHKE: Yeah, the general plant workers may or may not have had this 65 hours per week.

DR. ANIGSTEIN: They may have had enough of those workers. Just as an aside, there is a

1 trade-off if you're running any kind of an 2 organization, and you're assigning overtime 3 because on the one hand they get paid time and 4 a half so they appear to be more expensive. 5 On the other hand hiring new workers and 6 having to pay their benefits, there's a trade-So they may have given it to everyone. 7 off. 8 And there's also a trade-off in MS. MUNN: 9 efficiency. Anyone who works in any plant 10 knows that. 11 **DR. ANIGSTEIN:** Or any other job. That's 12 true. But because there were a limited 13 number of trained Betatron operators they 14 15 would be definitely running those, my guess is 16 they probably ran them 18 shifts a week. 17 Next, oh, yeah, the steel work 18 practice, that's a fairly firm about this 19 finding that the way it's presented in 20 Appendix BB was that each shot was as if it 21 was a new casting. They said, well, they 22 would come in with a brand new casting that 23 had not been irradiated, not radioactive. 24 Then it would take about half an hour 25 to set up the casting and the shot. And then

they would shoot for an hour. That seemed to be assumed that all the shots were an hour. Then they would take another half hour to take it down, remove the film and get it out of the And so they could only do four a day. room. And so most of the time the operators were spending in the control room, at least half their time. And they vehemently denied that. When they read the report they said absolutely that's not the case. The turnaround time was very fast, and it was not a new casting every time. One casting would require dozens of shots. So it may be true if they were bringing in a new casting. Get the old one up on the railcar, remove it, bring the new one in, yeah, that could take time, but that didn't happen very often. Because the castings, you could only do 14-by-17 inches, and the castings were much larger than that. So that makes a difference in the work practice. It makes a big difference in the exposure. Then number ten, what there was is Sam Glover shared the MCNP input file, and he did

it a little differently than we did it, but it

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1 was basically a reasonable approach for 2 calculating the activation of the steel and 3 then using another computer code, Origin II, 4 which is part of the scale system, to get the, 5 what is the spectrum of radionuclides 6 resulting from uranium fission and then 7 getting the radiation from the radionuclide. 8 But there is a place where you have to 9 put in the atom density. It's in peculiar 10 It's in atoms per barns centimeter. units. 11 MS. MUNN: I can relate to that. 12 DR. ANIGSTEIN: Anyway, the number for 13 uranium should have been around 0.06, 14 something like that, and it was erroneously 15 entered as one. So you immediately get an 16 error of a factor of 16. So that's our 17 finding. 18 And then the scatter radiation that 19 they say if they give the, they calculate the 20 dose to the Betatron operators, and they 21 assign that dose to any worker who handled 22 that steel because of the residual activity, 23 says we'll give that dose to any worker who 24 handled steel within two hours of the time 25 that it was radiographed.

1	And everyone else gets the 0.72 MR per
2	hour because that's the most you get from this
3	sky shine, find that there are many locations
4	where the dose rate is much, much higher. So
5	that workers, non-Betatron workers, are not,
6	that's not claimant favorable to assign them
7	0.72 MR per hour.
8	The critique, issue 12, really
9	concerns the critique of TBD-6000. But in
10	brief our difference is that the concentration
11	in the air while the uranium is being handled
12	is based on one of the scenarios in 6000. We
13	think that that's the reason it's claimant
14	favorable. I think it was 198 going from
15	memory now, 198 DPM per meter. However, they
16	used that concentration and said, okay, you
17	have 5 micron AMAD uranium particles. So
18	they're in the air and they settle to the
19	floor, and by calculating the settling
20	velocity, you can calculate how much side of
21	the contamination layer. And our comment is
22	that the uranium oxide forms on the surface of
23	the uranium, it flakes off, and it falls
24	directly to the floor. It never becomes
25	airborne. It doesn't contribute to that

1 measured airborne concentration. So on the 2 floor there's a lot more when you calculate 3 this way. 4 And then secondly, they use a 5 resuspension factor of ten to the minus six, 6 and that's probably a good resuspension factor 7 for a very quiet facility like a 8 decommissioned facility. Nobody's moving 9 around, and there is maybe occasionally a 10 draft. Here you have workers walking, if not 11 running, across this floor, trucks coming in, 12 wheeled vehicles. Some of this stuff comes in 13 like the one big casting ^ car, was on a 14 flatbed trailer, truck trailer, they come in. 15 So there will be considerably more dust 16 stirred up. 17 So we think that ten to the minus 18 five, ten to the minus four would be a 19 reasonable resuspension factor. So that there 20 will be larger intakes in between the uranium 21 operations and also during this residual 22 period after the cessation of contract 23 activities. That's our finding. 24 DR. MAURO: I'd like to add to that a 25 little, those two issues related to

1 accumulation of residual radioactivity from 2 deposition and the resuspension. Those are 3 generic and global issues that NIOSH has 4 already addressed, one aspect of it, namely, 5 the ingestion part. And coming up, I think it 6 was OTIB-0009? 7 MR. HINNEFELD: Sounds right. 8 DR. MAURO: About the resuspension factor 9 question of ten to the minus six is still, it 10 is a global issue that I believe is still 11 under investigation on the... 12 I heard Jim say that at one of our 13 meetings. So this last comment that, set of 14 comments, related to uranium inhalation, 15 certainly we can address them as part of this. 16 But I believe that we're going to find that 17 it's probably already actively being addressed 18 in another venue. 19 **DR. ANIGSTEIN:** I think I'm a little 20 concerned. You did mention ingestion which we 21 specifically did not include ingestion in any 22 comment on ingestion because we are 23 understanding that was being addressed. But 24 that does not address the inhalation. 25 DR. MAURO: That's correct. The build up of

1 residual radioactivity on surfaces is common 2 to both the inhalation from resuspension and 3 the ingestion. 4 DR. ZIEMER (by Telephone): This is Ziemer. 5 Let me ask a question on that because you mention here that the larger, quote, flakes of 6 7 uranium oxide falling. But before the 8 resuspension of interest has got to be this 9 stuff smaller than five microns I would think. 10 How important is this other issue? I mean, 11 when you're going to ten to the minus five or 12 minus four, are you still referring to the 13 smaller particles? 14 DR. MAURO: Yeah, you're not going to get, 15 in general, resuspension the rule of thumb is 16 if it's bigger than a hundred microns, it 17 really is not going to come up. But now the 18 question --19 DR. ZIEMER (by Telephone): Now, this says 20 ignores the larger particles. But what I'm 21 asking is that sort of important? DR. MAURO: It might be. We've been talking 22 23 about this. The question is, okay, the 24 particles flake off are various sizes, fall to 25 the ground. And certainly, if they stay as

1	large particles the potential for resuspension
2	is minimal. However, there's so much
3	anthropomorphic activity, walking, grinding
4	under foot, the vehicles
5	DR. ANIGSTEIN: Anthropogenic.
6	DR. MAURO: What did I say?
7	DR. ANIGSTEIN: You meant to say
8	anthropogenic.
9	DR. MAURO: What did I say, anthropomorphic?
10	DR. ANIGSTEIN: Right.
11	DR. MAURO: My apologies. So you're right.
12	It's a tough question whether or not are those
13	particles that flake off and fall to the
14	ground that may be in larger quantities than
15	would occur from the deposition going on.
16	DR. ZIEMER (by Telephone): I guess we can
17	speculate as to whether they'd be ground up
18	more of a ^-type effect, but has anyone looked
19	at that study-wise? Are there, have you guys
20	looked at the literature at all?
21	DR. MAURO: No, we took it from assume you
22	have fine particles below 100 microns on
23	surfaces. We have looked at resuspension
24	factors. However, we have not, at least I
25	haven't, and, Bob, you may have looked

1 at would you expect the uranium that flakes 2 off and falls to become ground up. No, no. 3 DR. ANIGSTEIN: Just intuitively, if you're 4 stomping over it in your work shoes, and 5 you're driving trucks over it, you would think 6 there might be some --DR. ZIEMER (by Telephone): Well, you know, 7 8 I guess I would have that same reaction 9 although I, just for the sake of argument, I 10 suppose one could argue that depending on what 11 else is being used in there, stuff could also 12 clump up and become less suspendable. I mean, 13 like is there any grease around, you know what 14 I'm saying? So a priori I don't want to 15 assume one way or the other. That's why I 16 asked if we had any studies where people have 17 looked at this. 18 DR. MAURO: And I think it goes beyond that 19 also. Remember the residual uranium on 20 surfaces, the database that we have, really 21 goes toward, in TBD-6000, goes toward uranium 22 machining operations, places that were really 23 hacking away on this uranium and really had a 24 tremendous potential to generate large flakes 25 falling on surfaces.

1 This operation wasn't like that. They 2 were handling slabs, but I guess I'm picturing 3 they weren't doing the kinds of things you do 4 at a uranium machining operation. 5 MS. MUNN: Certainly not a machining 6 operation. 7 DR. MAURO: So I would say on both accounts 8 there are certainly offsetting factors, no 9 doubt about it. 10 DR. ZIEMER (by Telephone): Okay, just 11 wondered. 12 MS. MUNN: And ten to the sixth has been 13 used widely in resuspension calculations 14 previously --DR. MAURO: Not for the --15 16 MS. MUNN: -- but not for this type of, I 17 recognize that. That was issue 12, right? And there's 18 19 one more. 20 DR. ANIGSTEIN: Okay, this is just a 21 scientific nitpicking perhaps, but the units 22 are not consistent in the Appendix. They talk 23 millirem and milliroentgen are used sometimes 24 interchangeably. In one place in the Appendix 25 they refer to the sky shine as 0.72 millirem,

1	and in another place they refer to it as 0.72
2	milliroentgen. And the two units of, there's
3	a difference of about ten or 15 percent.
4	And it's just scientifically not
5	correct. I'm not saying it makes a huge
6	difference in the construction. And in
7	another place they refer to beta dose in
8	Roentgens per units. Beta cannot be measured
9	in Roentgens so it's just a scientific
10	observation.
11	DR. MAURO: Normally, those kinds of
12	comments we relegate to what we call
13	observations. So it really doesn't make it to
14	here.
15	MS. MUNN: That's fine, and it's something
16	I'm sure NIOSH will want to address.
17	Stu, I don't want to put you on the
18	spot here, but do we have any feel for when we
19	might be getting NIOSH responses to these
20	comments?
21	MR. HINNEFELD: I would think they'd be
22	available by the next in-person Board meeting.
23	That's a little more than a month away. I'd
24	think they'd be available by then, but I
25	really have to find out. The person who's

doing it is Dave Allen who does a lot of other stuff, too. So I hate to, you know, if I tell him to do this by that meeting, what does that do to the other things he's working on. And is this really one to do at the expense of those other things. I really need to go find that out, but I think that would be a reasonable guess.

9 MS. MUNN: There's really some concern with 10 respect to when our next meeting needs to be. 11 We have so much on our respective plates that 12 it's, I had hoped that perhaps we might work 13 toward incorporating the next meeting of this with the big Board meeting. But at this point 14 15 it doesn't seem likely given what the agenda 16 is probably shaping up to be for that three-17 day Board meeting. If we cannot put together 18 our next session prior to that time, then it's 19 hoped that we could be able to meet before 20 very long following that.

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21DR. BRANCHE: Just to let you know, Wanda, I22have tried to make provisions so that23anticipating that you and there's one other24that I suspect might need some time, you have25time if you want to meet either the evening

1	before or the morning of the first day of the
2	Board meeting because Mark is having his
3	Subcommittee meeting completely separate from
4	the Board meeting.
5	MS. MUNN: That would be helpful for us.
6	UNIDENTIFIED (by Telephone): Well, I'll
7	come and listen.
8	MS. MUNN: Hello?
9	DR. BRANCHE: Who just said that?
10	MS. MUNN: I don't know, but if we did have
11	the morning prior to
12	DR. BRANCHE: The morning of the 24 th .
13	MS. MUNN: Would it be possible for us to at
14	least address some of this?
15	MR. HINNEFELD: I think we can address some
16	things. You know, there's a lot of other
17	things to address. There are open findings
18	that we provided initial responses on that
19	we've never talked about. So I mean there are
20	a lot of things that could be talked about.
21	MS. MUNN: My concern is that those open
22	items that we have not even touched on here
23	today
24	DR. BRANCHE: Excuse me, if you could please
25	mute your phones. Thank you.

1 MS. MUNN: The problem is that we have that 2 list of what would have been action items 3 normally for this meeting, which we have not 4 touched on with any depth at all with the 5 exception of the items that you and Steve 6 discussed in your e-mail. So we do have a 7 number of outstanding items that are not on 8 our agenda today. 9 After our break let's resume this 10 discussion because we need to come to some 11 conclusion about how we as a working group can 12 prioritize the outstanding issues that we have 13 not talked about today in concert with what we 14 have talked about today and how long it's 15 going to take us to address those when our 16 next meeting is going to be. 17 I don't think this agenda is going to 18 be really easy for us to come to real 19 agreement dealing with everyone's realistic 20 expectations and schedules. Then tentatively 21 I will hope that you and Dave will be able to 22 at least have some initial response for most 23 of the items that we have here in Appendix BB. 24 MR. HINNEFELD: I would think so. I would 25 think we can do it by then, but like I said

1	again, it depends on everything else that is
2	being done.
3	MS. MUNN: Let's do take advantage of the
4	morning of the 24 th .
5	DR. BRANCHE: How long do you think you'll
6	want?
7	MS. MUNN: We'll take the entire morning.
8	We won't be meeting for an hour or so. We'll
9	take the entire morning.
10	DR. BRANCHE: Like 8:30 until about 11:30?
11	MS. MUNN: Eight thirty until 11:30 at
12	least. Probably 8:30 when does our
13	afternoon session begin?
14	DR. BRANCHE: I'm either going to begin it
15	at one or 1:30.
16	DR. ZIEMER (by Telephone): You may have
17	some overlap with some other group that wants
18	to meet that morning.
19	DR. BRANCHE: Yeah, I haven't let everybody
20	know that this provision is there. I had to
21	wait until I heard more about what NIOSH was,
22	I mean, I just finished the Federal Register
23	announcement draft, and so once I did that I
24	realized how much, I don't want to say too
25	much flexibility, but I have some flexibility

so we don't have to start the morning of the 24th.

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MS. MUNN: That's good because we can really use the morning.

DR. BRANCHE: And I didn't alter things because we're going, many people indicated they wished to go visit the Mallinckrodt site, and so there's the opportunity for sort of a late afternoon-early evening for people who want to have meetings then. And then I would say if you put dibs, since you're putting dibs now, that we might have some competing meetings.

14 We have to be careful of that though 15 because there's only one of me, and I think 16 there's only one other person who I have 17 available who can be a DFO, and Dr. Wade is 18 not going to be in the country even. So I've 19 got Chia-Chia Chang who can do it. And also, 20 we only have one recorder. So I have, we've 21 got to be able to have some balance here. So, Paul, I don't think we're going to 22 23 have too many competing meetings. It just

might be that we have to snip and parse. We

might have to snip and parse here and there.

1 MR. STEPHAN (by Telephone): Hey, Wanda, 2 this is Robert Stephan with Senator Obama. 3 MS. MUNN: Hello, Robert. 4 MR. STEPHAN (by Telephone): How are you? 5 MS. MUNN: I'm fine. How are you? 6 MR. STEPHAN (by Telephone): Good. I don't want to interrupt here. Just wanted to let 7 8 you know I was on the call and whenever you 9 get a moment, I just have a quick comment. 10 MS. MUNN: We do appreciate that, and your 11 comment would be happy to be received right 12 now. 13 MR. STEPHAN (by Telephone): Thank you. Ι 14 want to just throw out there that I think 15 we're heading towards a need for an 83-14 on 16 this issue. I certainly appreciate what SC&A 17 has done. Matter of fact I believe it was 18 Senator Obama who requested this report awhile 19 back. SC&A has provided our office with a 20 briefing. Wanda was on that call. We had a 21 very good call. 22 The direction that we seem to be 23 heading in is there are so many unknowns. And 24 I'm just very fearful that we're going to --25 we need to debate this trying to find every

1	answer to every unknown, which will be very
2	timely. And as you know we have always had a
3	problem with timeliness. I don't, I think
4	that, not be afraid to say that we don't know.
5	Let's move on.
6	In particular, I realize this is not
7	Steve's fault. He doesn't have a written
8	report in front of him; therefore, I'm sure he
9	doesn't want to comment too much on his
10	response without a written report. But I'm
11	really concerned that we're not going to
12	report in enough time by our June Board
13	meeting, which is in St. Louis. And we
14	requested it be in St. Louis so the GSI
15	workers could come.
16	It seems like we're going to yet again
17	have a meeting where we're really not ready to
18	vote, and that is very, very troubling to me.
19	So I'm very anxious to see NIOSH's response or
20	for NIOSH to say they do not have a response
21	and they're recommending the 83-14. But I'm
22	at least hopeful that we can prioritize, NIOSH
23	could prioritize a response to this given that
24	the next meeting is in St. Louis. The GSI
25	workers will be there. Let's get it on the

1	agenda, and let's vote, and let's move on, and
2	let's be done with this.
3	It seems to me there's been a well,
4	let me back up. My understanding is NIOSH,
5	this report on May the 2^{nd} and is in the
6	process of trying to find some minutes from
7	SC&A's meeting with the workers.
8	John, you know, can any of you guys
9	get those meeting minutes to NIOSH post haste?
10	(no response)
11	MR. STEPHAN (by Telephone): John Mauro?
12	DR. MAURO: The meeting minutes, I thought
13	that was taken
14	Bob, you were right in the middle of
15	this.
16	DR. ANIGSTEIN: No, I was not.
17	DR. MAURO: There were some meeting minutes
18	taken
19	MR. ELLIOTT: I think the meeting minutes
20	have already been taken care of. This is
21	Larry Elliott, Robert.
22	MR. STEPHAN (by Telephone): Larry, do you
23	have those minutes?
24	MR. ELLIOTT: Yes, the minutes have already
25	been created. This was an SC&A set of

1 interviews, and we were, Bob was so kind to 2 offer the invitation to some of our contract 3 staff to participate in those, and she took 4 notes. And in order to provide a clear record 5 here, I asked her, our contractor, to complete 6 a set of minutes based upon her notes and 7 share those with John Ramspott and his crew to 8 get comment and edit on those. 9 And I think that's where those notes 10 They're now being edited based upon are at. 11 the comments that John collected for us. So 12 as soon as we can pull those together they 13 will be distributed. 14 MR. STEPHAN (by Telephone): You're waiting 15 on comments from the workers to those minutes? MR. ELLIOTT: I believe that we have all of 16 17 John Ramspott's set of comments and now the 18 comments are being addressed in the revision 19 of the minutes. And I haven't seen that 20 completed yet. 21 MR. STEPHAN (by Telephone): Okay, is it 22 possible, Larry, that we can get a response 23 from NIOSH prior to the Board meeting? 24 MR. ELLIOTT: Well, we will do our best 25 given the priorities of everything that we

1	have. And it's certainly our goal, as Stu
2	alluded to earlier, to figure out what we can
3	accommodate in this regard. We'll produce,
4	even if it's a partial reaction, we'll produce
5	what we can in advance of the Board meeting.
6	I would say that an 83-14 is not
7	necessarily an option here. What I see in
8	SC&A's review is another way of bounding the
9	dose. So it's not been shown to me yet that
10	we cannot bound the dose here. So it's not an
11	SEC issue. It becomes a dose reconstruction
12	approach issue.
13	MR. STEPHAN (by Telephone): Right, well, I
14	guess what I mean by 83-14, maybe that is
15	technically not the route. What I'm saying is
16	that if there is disagreement over bounding
17	the dose, at what point in time do we say,
18	okay, we can't agree on that? Or we can
19	agree. Maybe you can agree, and we'll find
20	that out in advance of the meeting.
21	I'm just trying to think ahead to see
22	where we will be and wrap this up as soon as
23	we possibly can. I'm just very nervous we're
24	going to have this meeting in June, and we're
24 25	going to have this meeting in June, and we're going to not have a vote in June. We're not

1 going to have a conclusion. We're going to be 2 out in August or September, which will be 3 highly frustrating to the workers and highly 4 frustrating to the senator. 5 And we need to wrap it up at some 6 point. So I'm just fearful that we're going 7 to have a long, protracted process of 8 disagreeing on what this appropriate bounding 9 of this dose is. 10 MS. MUNN: Robert, this is Wanda. I think 11 as best we can determine certainly everyone on 12 the work group, and I believe everyone in the 13 agency is extremely concerned with the issues 14 that you raised, and we sincerely want, as you 15 do, to bring this to closure as quickly as 16 possible. 17 The reason we were having the 18 discussion just prior to your comments with 19 respect to when we could meet again and when 20 we could anticipate having some responses that 21 we can deal with at the work group. If, in 22 the best of all possible worlds, we would have 23 the findings addressed, be able to discuss it 24 in a very abbreviated fashion and have some 25 suggestion that we might place before the

1 Board at this meeting, but that is the best of 2 all possible worlds, and none of us are sure 3 we've been able to achieve that level of 4 perfection yet. 5 We're going to do our best to try to 6 do that. It's in our minds and in our hearts. 7 Whether we can fulfill that is a reality we 8 just will have to address at the time it comes 9 along. So we'll keep our finger on the pulse 10 and try to do the best we can. We've asked 11 for time just before the meeting in order to 12 see how much of this we can get our arms 13 around. If we can get enough of it that we 14 can bring something to the table, we'll do it. 15 MR. STEPHAN (by Telephone): So I'm 16 understanding correctly, Wanda, you guys are 17 proposing to have another work group meeting, 18 not as an official part of the next Board 19 meeting but prior to the Board meeting --20 The morning before the --MS. MUNN: 21 MR. STEPHAN (by Telephone): -- person there 22 in St. Louis. This is going to be the main 23 issue that you discuss? 24 MS. MUNN: It will certainly be the first 25 item on the agenda, yes, absolutely.

1	MR. STEPHAN (by Telephone): Okay.
2	DR. BRANCHE: But, Mr. Stephan, this is
3	Christine Branche, just to clarify. What Ms.
4	Munn said is that it will be the morning of
5	the first day of the Board meeting is what
6	we're proposing.
7	MR. STEPHAN (by Telephone): Okay, I
8	understand. Thank you. Fair enough, guys.
9	Thank you.
10	Thank you, Larry.
11	MR. HINNEFELD: Just to add one thing to the
12	discussion, this is Stu Hinnefeld. We
13	received recently an 83-dot-13 petition,
14	General Steel Industries. So a -dot-14
15	petition doesn't matter assuming the
16	evaluation here goes to the entire covered
17	period and all the exposures, we don't really
18	need to go the 83-dot-14 route. The decision
19	would be coming out during the evaluation
20	report on this 83-dot-13.
21	MR. STEPHAN (by Telephone): You have that
22	83-13 already ready to go?
23	MR. HINNEFELD: Well, the dot-13 is the
24	petition that's received from a petitioner.
25	We received it, oh, I guess it's a month or

1	more ago, and we received the initial
2	petition. We have had conversations with the
3	petitioner in order to make sure we get a
4	petition in in form for qualification. And it
5	looks like we qualified the petition. I'm
6	reading now off our database.
7	It looks like we qualified the
8	petition about a week ago, six days ago. So
9	the petition's been qualified for evaluation,
10	so it will be evaluated. So the 83-dot-14
11	technique avenue isn't necessary because we're
12	farther along on 83-dot-13 if the decision
13	ultimately is that the dose reconstruction is
14	not feasible in that class. Now that's a big
15	if. So if that's the decision ultimately
16	we're farther along on 83-dot-13 than we would
17	be on
18	MR. ELLIOTT: I would also add to this
19	discussion just so that the record is
20	straight. That if it's determined that we
21	cannot reconstruct this Betatron dose, then
22	what good does that do a class? Because it's
23	external dose primarily, and skin cancer is
24	not one of 22 cancers covered under the class.
25	MR. HINNEFELD: Well, the 22 get covered.

1 MR. ELLIOTT: The 22 get covered, but skin 2 cancer is left totally without any partial 3 that we can do other than -- so there's that 4 to keep in mind, too. Again, what I've seen 5 today, and what we saw in Bob's briefing notes from last Friday in the report, it's not an 6 7 SEC issue. It is a dose reconstruction 8 approach issue. 9 MR. HINNEFELD: That's the way it sounds to 10 me. 11 MR. ELLIOTT: I just don't -- there's a lot 12 of confusion running rampant in southern Illinois about what all of this means. And to 13 14 me it's not an SEC class issue. Yes, we have 15 a petition, 83-13 petition, and we'll process that and evaluate it. But what we have before 16 17 us right now in this review is a site profile-18 related issue. 19 MR. STEPHAN (by Telephone): Help me 20 understand the timeline for this 83-13 and how 21 that impacts the site profile that you're 22 discussing now. 23 MR. ELLIOTT: Well, I hope that we'll have -24 25 MR. STEPHAN (by Telephone): That will

1	eliminate some of the confusion.
2	MR. ELLIOTT: This is Larry Elliott. I'll
3	answer your question as best I can. I hope
4	that we'll have this scientific dialogue
5	concluded on this review well in advance so
6	that it can be added to our evaluation report.
7	So we'll have settled this review set of
8	issues and that will be factored into any
9	evaluation that's done on the petition.
10	MR. STEPHAN (by Telephone): I mean, the
11	normal SEC petition process takes quite awhile
12	for the evaluation report et cetera. You're
13	already pretty far along into that process is
14	what you're saying.
15	MR. ELLIOTT: Yes, that's Stu's point.
16	MR. HINNEFELD: According to the database
17	we're 33 days into the 180-day clock. The
18	180-day clock is from the petition to issue an
19	evaluation report. And there is certain time
20	for trying to work with the petitioner to get
21	a petition that will qualify that the time
22	doesn't toll. So right now we're 33 days
23	according to our database, 33 days into the
24	180-day clock. The 180-day clock is to issue
25	an evaluation report.

1 MR. STEPHAN (by Telephone): Okay. I don't 2 want to take too much time here. I obviously 3 have some confusion on my end or just some 4 points I think we need to go over a little bit 5 more. So I'd be happy to do that, Larry and 6 Stu, if you guys are willing in a separate 7 conference call. 8 MR. ELLIOTT: Surely. I think another 9 confusion out there is that the dose 10 reconstruction reports that we are producing 11 may yield in some instances, for example, a 12 dose estimate of 49.18 rem. And people are 13 interpreting that to mean that's the 14 probability of causation, and it is not. 15 So when I hear folks saying, well, 16 I've got five or six cases here that I want to 17 talk about that have almost the 50 percent 18 probability but not quite, I want to talk 19 about that. Well, I want to talk to them, 20 too, because I want them to understand that 21 what they're quoting is the amount of dose that's been assigned, not the probability of 22 23 causation estimate. 24 MR. STEPHAN (by Telephone): Right, right, 25 that was a source of confusion. I can only

1	speak to one case. I'm not sure about the
2	other five.
3	MS. MUNN: All right then, it's my
4	understanding, Robert, you're going to speak
5	with Larry and/or Stu offline and clear up,
6	and everybody get on the same page about where
7	we are.
8	MR. STEPHAN (by Telephone): Yes, thank you.
9	MS. MUNN: Good, thank you. We appreciate
10	your interest and thank you for chiming in.
11	We're right now at break time if
12	that's all right with everyone here. We will
13	take a 15-minute break. We will be back at
14	3:18.
15	DR. BRANCHE: Three eighteen. I'll put the
16	phone on mute.
17	(Whereupon, the working group took a break.)
18	DR. BRANCHE: I'd ask that you mute your
19	phones. I haven't talked about this in a
20	couple of cycles. I just want to remind you
21	the quality of the line for the other
22	participants by phone is hampered if those of
23	you who are on the phone don't mute your
24	phones. So I do ask that you mute your phones
25	and that if you do not have a mute button,

1 then please use star six and then use that 2 same star six to unmute your phones when 3 you're ready to speak. Thanks so much. Ι 4 appreciate it. 5 Ms. Munn. 6 DISCUSSION ON OPEN, OPEN/IN PROGRESS, IN ABEYANCE AND 7 CLOSED 8 I have allowed us a full hour on MS. MUNN: 9 our agenda for this item, which looks as 10 though it ought to be very simple, but it may 11 not be. I call your attention back to our 12 very first agenda item which was our summary 13 of procedures and the discussion that we had 14 at that time with respect to the items below 15 the numbers, how we are going to define open, 16 open-in progress, in abeyance and what is and 17 is not closed. How we're going to get our 18 arms around that. 19 Is there anyone who wants to start 20 this discussion? Is there any part of this 21 that you feel strongly about that you feel we 22 should adopt immediately and move forward 23 with? 24 (no response) 25 If not, then let's first take up MS. MUNN:

1 the question that we already discussed but 2 have not brought to closure with respect to 3 transfers. There are two issues that need to 4 be considered. One is the language that we 5 are intending when we say closed. The other 6 is will we adopt, will we break transferred 7 into two different categories, input and --8 import and export, sorry. 9 DR. ZIEMER (by Telephone): Wanda, this is 10 Ziemer. 11 MS. MUNN: Yes, Paul. 12 DR. ZIEMER (by Telephone): I sort of, I like Kathy Behling's suggestion to use the 13 14 export terminology when we move it out of this 15 database versus transferred terminology when 16 it's moved within the database to a different 17 location I think is how she described it. 18 That would give us --MS. MUNN: 19 DR. ZIEMER (by Telephone): I'm not sure on 20 the transferred part of it exactly what she 21 was referring to, but in cases where we 22 transfer to a different item. 23 MS. MUNN: Yes, I think that she meant as 24 long as we're continuing to deal with our 25 Procedures work group database, transferring

from one page of the database to another page or to a different item within the database would be a transfer.

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If we're going to send it off to some other entirely different database, some other work group or to the Subcommittee, then it would become an export. That would leave us then with three categories as opposed to the one we have now. We would have a transfer category. We would have an export category, and we would have an import category.

12 MR. HINNEFELD: Now, how is transferred 13 different from the current status of addressed 14 in findings? Because right now we have a 15 status that says addressed in finding and then 16 there's a blank and you put in the finding 17 somewhere else within the Procedure database 18 where it's going to be, where the answer can 19 be addressed. And that sounds like what you 20 just described as a transfer. 21 MS. MUNN: Yes, but the question that arises

MS. MUNN: Yes, but the question that arises is that closed where it was. You see, it's not an import for the new item where it appears. It's a transfer in the new item where it appears, transferred from and the

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DR. ZIEMER (by Telephone): What would be an example? That may help me.

DR. MAURO: I recall one particular review that we were working on. It might have been OTIB-0004 and may have had 15 different findings. However, 12 of them were for all intents and purposes related. And in the end what really happens is when we deal with number seven, we have for all intents and purposes we have dealt with the whole thing. I remember that kind of conversation.

MS. MUNN: Yes.

DR. MAURO: And so we found ourselves saying, well, we don't need these many findings. We really only use one finding which really captures everything. And I think that would be an example of why once that one are really being addressed elsewhere so we don't have to track that one separately. So I think that's at least one example where we said we could simplify this whole, at least in OTIB-0004, by simply saying really there are only, instead of 17 findings, we really only have four which would really encompass all 17.

1	And I remember we talked about that. What
2	happened to that I'm not quite sure. If we
3	opened up -0004 we might be able to find that
4	out, but I think that's an example that this
5	particular issue is being addressed as part of
6	issue number seven. This issue number two is
7	being addressed as part of issue number seven.
8	That was all within one procedure.
9	MS. MUNN: That is definitely a transfer.
10	That's not even a transfer to another part of
11	the same database. It's internal to the one
12	finding actually.
13	MR. MARSCHKE: We used that, addressed in
14	finding seven.
15	DR. MAURO: Yeah, right. But one thing that
16	I think we jumped over that I think is going
17	to be more fundamental, I'm sort of a purist.
18	If we're going to call something closed, I
19	think that means the issue itself, the
20	technical issue itself is closed. We've
21	solved it. We've put it to bed, and we could
22	write it in the scorecard and say this is a
23	win. We've closed it out. I realize I'm just
24	here in the capacity I'm here, but I like the,
25	it's a simple thing, and if we could say

something is closed as opposed to calling it closed, when in fact it's really been transferred, is very disturbing to me.

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MR. MARSCHKE: But basically we're not saying, I mean, we have a category, I mean, the thing that Nancy put together. She has not, each one is identified as transferred. They're not basically identified as closed, transferred and closed. I don't know what, you know, when you say transferred, it's still, I guess it's some place else. It's waiting for, eventually this will be closed.

I think some of these were the generic 13 14 issues on like inhalation or something as I 15 recall that were transferred to the generic 16 issue. I'm assuming that when that white 17 paper is issued, these that were transferred 18 will then become closed. I don't think we 19 should consider these transfers, the 11 that 20 had been transferred, at this point they're 21 transferred. They're not closed. 22 DR. MAURO: I agree with you. 23 MS. MUNN: In the case that you've just 24 cited though, Steve, that case is not going to 25 be a transfer. That's going to be an export.

1 MR. MARSCHKE: That will be an export, yes, 2 because it's going outside. 3 MS. MUNN: It will go to the group --4 DR. ZIEMER (by Telephone): Eventually it 5 might show up as closed once the final issue is closed. 6 7 MS. MUNN: Exactly. Exactly. But for our 8 purposes in this database at this time, that 9 item is closed as far as we're concerned, but 10 it is an export. And it would be shown in our 11 database as exported to overarching issues or 12 that's not the terminology we've agreed to 13 use, but the group that is going to address 14 generic issues. 15 MR. MARSCHKE: And when that generic issue 16 has been addressed, then we will come back and 17 we will have a working group directive which 18 says, okay, the white paper has addressed that 19 and addressed it in sufficient detail to 20 resolve this issue. Let's change it from 21 exported to closed. 22 MS. MUNN: That should happen automatically 23 if our process works the way it should work. 24 Which means that in the database that it goes 25 to, it will show as an import from this

1 database. And anyone who closes an item which 2 has been imported has the responsibility to 3 close not only the item in the database where 4 it's closed, but also in the database from 5 which it was imported. 6 MR. MARSCHKE: That brings up, I'm not sure 7 how to, yeah, that brings up another question 8 of how to, how the imported as a status 9 operates. When I have a finding which has 10 been statused as import, do I assume, okay, 11 that's imported, and it's open. And then when 12 basically the issue is resolved I change it. If I change it to closed now, I've lost the 13 14 source where that finding came from if you 15 follow my direction or follow my logic here. 16 We had in the status column that this 17 particular finding was imported from somewhere 18 else. Now we're going to --19 MS. MUNN: And it needs to say from where. 20 MR. MARSCHKE: And it probably says from 21 where. 22 MS. MUNN: It must say from where. 23 MR. MARSCHKE: It will say from where, okay. 24 It will say from where. But now eventually --25 DR. ZIEMER (by Telephone): It's sounding

1 like all of the cases where the status may 2 change in time but you still have built into 3 the system if you burrow down in, you find how 4 it was resolved, and the details are there at 5 some point, right? 6 MR. MARSCHKE: I guess that's the way you 7 have to do it. You have to basically change 8 the status sometime when --9 DR. ZIEMER (by Telephone): Everything 10 starts out as open. Then it goes to open-in 11 Then it may become transferred, or progress. 12 it may be exported, or it may be in abeyance, or it may be, so all of these are going to be 13 14 changing status in time. So if you want to 15 know how it got to the final thing, you still 16 have to burrow down in and look at those sub-17 reports or those subsections within that 18 finding. 19 MR. MARSCHKE: But when this one would not 20 start as open. This one would start as 21 imported. 22 DR. ZIEMER (by Telephone): All right then, 23 however it starts that imported part will 24 still have the information about when it was 25 addressed and the work group and what the

1 findings were and NIOSH response and so on. 2 MS. MUNN: It'll have, its first indicator 3 will be imported from work group on 4 Procedures, date, what else? Then that's a 5 flag that closure on that item requires 6 feedback to the work group from which the item 7 was imported originally. 8 MR. MARSCHKE: So that means it maintains 9 that status until it's ready to be closed. 10 MS. MUNN: That's correct. 11 MR. HINNEFELD: You can accomplish this with 12 statuses if you leave the word imported on all your statuses and retain the same status codes 13 14 that you've used else time, but just call it 15 imported-open would be the status it would 16 come in as. It would be imported-open. Ιt 17 would be imported-open-in progress if we had 18 talked about it. It could be imported-in 19 abeyance if we promise we're going to change 20 something that you retain the history that 21 this didn't come originally from the review of 22 the document of this work group, but it came 23 from somewhere else, and you track it all the 24 way through. 25 So that allows you to use the whole

complement of statuses on that finding while not losing the fact that you've got to tie this connection back to where it came from. Because I think in order to automate that tieback to where it came from, you want to do it off status. You don't want to have to be searching through the details of a finding to automate the response.

9 MR. MARSCHKE: The only other option I could 10 see on that is to have another field where you 11 had a source field. And if you had a source 12 field separate from the status field, if you had a source field, and in the source field 13 14 you indicated it's imported. Or it's 15 basically from one of the reviews that we did 16 on the, or we could use that, the first set of 17 reviews or the source is the second set of 18 reviews or the source is the third set of 19 reviews or --

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DR. ZIEMER: Whatever works the best.

21 MR. MARSCHKE: Whatever it happens to be we 22 could have a, instead of trying to put 23 everything into the status, if we had a source 24 field in addition to the status field, then we 25 could do it that way as well.

1 MR. HINNEFELD: That'd be fine. I believe 2 that's a developer's choice, you know, they 3 would know how it would work better. MR. MARSCHKE: So if we could talk it over 4 5 with Don Loomis, and he can talk it over with 6 your people and find out, I mean, if the 7 working group concurs, I guess, that that's 8 what they want to do. Or if we want to try 9 and do everything in the status field, in one 10 field, then we can --11 DR. ZIEMER: Having a source field makes 12 sense to me. If that's something that can be 13 done simply, I'd say do it. 14 MR. HINNEFELD: I think we'd let the 15 developer choose what works best for him. I'll bet he'll choose the source field because 16 17 I think that will give him more flexibility. But I think we let him choose. 18 19 DR. ZIEMER: Yes. 20 MS. MUNN: It's fine with me. Anyone in the 21 work group disagree with that? 22 DR. ZIEMER: I think it makes sense. 23 MS. MUNN: If not, let's pursue that course. 24 MR. HINNEFELD: I still have a question on 25 while we're talking about these statuses.

1	We've now used the word transferred to talk
2	about things that are going to stay in the
3	Procedures database, right?
4	MS. MUNN: In our database for this work
5	group.
6	MR. HINNEFELD: Up `til now, the way it's
7	been used now, it's been transferred relates
8	to it's going somewhere else, like global
9	issues or something.
10	DR. MAURO: We can close that.
11	MR. HINNEFELD: Yes, okay, for the things
12	that are going to be addressed in the
13	Procedures database just on a different page,
14	we've used addressed in Finding such-and-such.
15	So what you're saying now is you just now want
16	to change that. Anything that's addressing in
17	Findings should be now called Transferred.
18	Anything that's currently called Transferred
19	should be called Exported.
20	DR. ZIEMER: I think you're right.
21	MR. HINNEFELD: That's what we decided?
22	MS. MUNN: That was what I was proposing.
23	MR. HINNEFELD: Okay, I'm sure, I mean, it
24	looks like there are about 11 transfers so
25	that would just be 11 fields I could call up

1	the Addressed in Findings and see how many
2	it's a data change that would have to be done.
3	MS. MUNN: Yes.
4	MR. HINNEFELD: Yeah, they're on the
5	spreadsheet.
6	MS. ADAMS: They're on the spreadsheet.
7	MR. HINNEFELD: Nine Addressed in Findings
8	and 11. So that's pretty modest. Since I
9	don't have to do the work, I can say that.
10	MS. MUNN: Hopefully, we can do that without
11	too much confusion to all concerned.
12	MS. ADAMS: And it looks like they're only
13	in like three documents.
14	MS. MUNN: That's good.
15	Now is there other terminology that we
16	need to discuss with respect to how these
17	items are statused?
18	MR. HINNEFELD: Well, here's a thought that
19	while we're worrying, let's worry that if the
20	housing imported finding for just in the
21	universe that we know, which is what we have
22	today, we have an imported finding, say, dose
23	reconstruction review. That would be a
24	logical one where an issue would come up in
25	dose reconstruction, but it really gets to the

1 procedure associated with that dose 2 reconstruction, and so it should be referred 3 to this working group. So this will be 4 imported now to this working group. 5 Now suppose it's to a procedure that 6 hasn't been reviewed. If you import this, if 7 you import one and we've reviewed that 8 procedure, you would import it, I guess, 9 probably to the most recent version of the 10 procedure that was reviewed. And it would 11 have to be resolved at that point. I would 12 guess that's where you're going to import it 13 to. 14 That would seem logical. MS. MUNN: 15 MR. HINNEFELD: What if the finding is 16 against a procedure that hasn't been reviewed? 17 There's no place in the database to put them. 18 So that would have to be something that would 19 have to be designed. You'd have to add that 20 procedure. 21 MR. MARSCHKE: That procedure would have to 22 be added in. One of the databases that we 23 have in there is a list of the procedures. 24 And we would just add it in as a new, you 25 know, we review any new procedure, we add to

that database.

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2 MR. HINNEFELD: And a business rule so 3 you'll know how to calculate all the fields. 4 Because there's a finding date where we have 5 just a handful of finding dates now because 6 they correspond to the dates the products, the 7 review products were delivered. So then we'll 8 have new finding dates, presumably the date 9 it's imported will be the finding date for 10 this one finding. And however else the 11 numbering scheme will have to have, be number 12 one for that. 13 **MS. MUNN:** We have a problem already. This 14 work group does not have the authority to ask 15 SC&A to review a procedure that's been 16 referred to us by the Subcommittee or anyone 17 else. Only the Board has the authority to 18 reassign these, to assign work to our 19 contractor. 20 So if we find ourselves in a situation 21 where we have to import something from other 22 groups, which is not covered by the work 23 currently being done by our contractor, we 24 cannot accept that. We can only accept it in 25 paper fashion until we present it to the Board

1 and the contractor as a request. 2 MR. MARSCHKE: So we can add it to the 3 database, but we can't really work on it. 4 MS. MUNN: Exactly. 5 DR. MAURO: You know, we're almost letting 6 the tail wag the dog here. Hold on a second 7 here. I'm thinking about, all right, we built 8 this process, and now we're trying to dream up 9 all the different ways in which it could be 10 defeated, and we could lose things. 11 MR. HINNEFELD: Well, that's what we do. 12 DR. MAURO: Now let's, in other words I 13 could envision spending hours trying to say, okay, we're in the process of doing a DR 14 15 review of case number blah-blah-blah. Now we 16 come across an issue, and you say, you know, 17 that's really a generic issue that deals with 18 MDLs, and we're working on a procedure that, 19 right now that it hasn't even been published yet, or it just was issued, or whatever. But 20 21 we recognize the problem, and I think we need 22 a procedure. 23 Now, what do we do with that? I mean 24 in an ideal world we say we transfer it. Now, 25 in my mind, okay, let's say we all agree it

1	really doesn't make sense to try to deal with
2	that here and now because it will be or is
3	being addressed in some generic procedure that
4	either is under our review or is being
5	developed. I think there should be a parking
6	lot.
7	A parking lot whereby any time while
8	you're doing a DR review, and you come up with
9	an issue that says, you know, we really don't
10	want to deal with this case because we think
11	it has global implications, such as recycled
12	uranium; whatever it is. And it really should
13	be dealt with globally because it has
14	ramifications across the board. So you don't
15	want to deal with it there. So you want to
16	transfer it now, but it really has no home.
17	That's the problem. It has no home.
18	Let's create a home. That is, if we
19	think it's something that belongs as part of a
20	procedure review, then it goes into,
21	automatically goes into this thing called the
22	parking lot for something that we believe is
23	generic, needs to be part of a procedure
24	review although we don't know which procedure
25	to put it in. And maybe we don't even know if

there is a procedure out here that it belongs to. There's always going to be, because we're dealing with how many, two hundred procedures.

MR. HINNEFELD: Something like that.

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DR. MAURO: So, I mean -- and I could see us agonizing over which one we want to click it over to. All I'm saying is don't let's worry about it. Let's just create a parking lot for transfers that it goes in as part of our database --

11 MS. MUNN: I like a parking lot idea except, 12 John, let's go back to our charter. Let's go back to who we are, and what we're doing. 13 14 This working group doesn't have the 15 responsibility for all the procedures that are 16 out there. This working group was put 17 together to resolve the findings of procedure 18 reviews that our contractor brings back to us 19 after they have been identified as topics for 20 SC&A to look at. So our world is not the 21 world of all procedures. Our world is the 22 world of the reviews of procedures that have 23 been looked at by our contractor. 24 So I'm not going to worry about 25 imports that may be identified in other work

groups or concerns that other people may identify because if they're not identifying something that is already in our universe, then it's not our job, mon. That is a harsh way of looking at it, but we have enough on our plate without worrying about what someone else may find. I like the idea of the parking lot.

9 DR. MAURO: I'm not saying we have to 10 resolve it though. I'm saying there's a 11 parking lot for it, and the day comes when the 12 working group and the Board decides they want 13 to take on a particular item, it's sitting in 14 the parking lot. It's there. But that 15 doesn't mean we, as a working group and as other Tasks Three, need to deal with it, but 16 17 we don't lose it. 18 See, I can see a situation where you

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don't want to deal with it on the Task Four DR review because it's generic and it's premature to take it on at that point. You don't want to lose it, so I guess we could make a decision. We're almost talking now the DR review process. MS. MUNN: Yeah, we really are. We really

are.

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DR. MAURO: Do we want to create a parking lot or not? If we don't, then we just leave it there.

MR. HINNEFELD: We could leave it there and fix it.

MS. MUNN: We're also talking about some of the things that Paul referenced in his recent memo that he sent out to all of us concerning the workings of the Board and how we were going to do things. And in my mind this kind of parking lot issue is the sort of thing that we've been talking about having Nancy undertake for us.

15 If we're going to have a parking lot, 16 and I don't know whether we need a parking lot 17 because I personally have not reviewed all of 18 the circumstances that are attendant to every 19 single one of the work groups and what they 20 may or may not be doing. I can't keep up with 21 that myself. If any of the rest of you can, 22 then you're a far better man than I am, Gunga 23 Din. But if we're going to have a parking lot 24 process that I, it would be my hope that we 25 could suggest that that be one of the kinds of

data tracking that Nancy will be responsible for.

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DR. BRANCHE: Actually, I would offer this. Probably exactly what we had in mind in designing this opportunity for the Board using Nancy's services is that there were issues that seemed to be getting lost. One work group thinking that it was being handled by another. There was no formal baton hand-off. I think this is exactly what we had in mind for Nancy.

MR. GIBSON: But if you have a parking lot though, then that's going to create the need for someone to put a time ticket on each of those issues because they may not get lost, how are they going to be prioritized?

17 DR. BRANCHE: You're bringing up a new 18 dimension that I think you should, you know, a 19 parking lot certainly does have sort of a 20 sense of rest to it. Maybe that's not the 21 best word for it. I understand where John's 22 coming from, and I think as Wanda already 23 said, I think it's a good idea that he's 24 raised it. But --25 DR. ZIEMER: Wanda?

MS. MUNN: Yes.

1 2 **DR. ZIEMER:** This is Ziemer. Could I make a 3 comment on this? The so-called parking lot is 4 somewhat like our scientific issues list, if I 5 can call it that, which has identified items 6 that the Board thinks can be important in the 7 future, some of which NIOSH is able to work 8 on, some of which they aren't, but it is 9 there. And at any time if we think something 10 on that list is of higher priority, we have 11 the opportunity to mete it out or ask that 12 something be done with it. 13 I suspect this is something like that 14 because the other work groups could say 15 something similar to what you said in terms of exports from us to them. Wait a minute. 16 The 17 Procedures Work Group, they're not running our 18 agenda. So all of the work groups can have 19 this argument. I think the issue of what 20 happens on items where one group thinks it 21 should go elsewhere is exactly where Nancy can 22 be helpful. 23 I don't know if we would call it a 24 parking lot or if you want to call it 25 something else, but it has to be something

1 that we review periodically to determine 2 whether or not any of the items on that list 3 are of sufficient importance or priority for 4 some sort of action to be taken. For example, 5 if something arises that's a procedure that's 6 not one that we have reviewed or part of a 7 procedure we haven't reviewed, it might raise 8 the question in the future, well, is it 9 important now to review that procedure in and of itself and also to resolve whatever that 10 11 issue was that arose in some work group that 12 they wanted to export to us. So it seems to 13 me it's a workable concept, but we would have 14 to use it to make sure that the items that 15 were identified are ones that at some point 16 should or should not be worked on. 17 DR. BRANCHE: I'm sorry, Paul, were you 18 finished? This is Christine. 19 DR. ZIEMER: Yeah. 20 DR. BRANCHE: A couple things that I'd like 21 to suggest because I think comments that you 22 and Wanda and Michael and John have all raised 23 are relevant. I wonder, however -- as I said 24 I think the word parking lot gives a sense of 25 rest that I think we don't want. And I think

1	it will be very important to find the right
2	word to describe this particular, I'll call it
3	a list or a place or a holder or whatever.
4	But I would say that you raised the issue of
5	priority, and I wonder if, as the Board Chair,
6	there's some ways to handle that.
7	Perhaps before it's assigned to this
8	location, the work group chair that wants to
9	redirect it can give us (a) a sense of
10	priority, and (b) a sense of timing. Because
11	not everything, I wonder that not everything
12	is going to be awaiting some action from
13	NIOSH. As you said yourself, there are some
14	things that are going to need some attention
15	from the work group to which it's assigned.
16	It might be something that needs to be
17	done by SC&A. It might be something that
18	needs to be done by any of a number of people,
19	a small number of people, but the action
20	that's needed needs to be very clear. But I
21	think it needs to be up to the work group. My
22	suggestion rather is that it be up to the work
23	group chair to assign a sense of priority and
24	just, and at least give an indication of how
25	much time they think it should take or what

1	sense of timing.
2	And then the work group chair to which
3	it is being suggested that it be redirected
4	can then accept that priority and accept that
5	timeliness. I think you need to have, again,
6	that baton hand-off or it'll just be a list
7	that really is a parking lot. And I think
8	Mike brings up a very important issue that you
9	need to keep nudging it, and you need to have
10	a periodicity of reviewing it.
11	But there needs to be a sense of
12	taking on that assignment by the person to
13	whom it's directed or it'll just sit there.
14	And that's what's been happening up to this
15	point.
16	MS. MUNN: A suggestion: may we suggest a
17	process for the entire Board for certainly any
18	other work groups that have these same kind of
19	issues that they are dealing with that we
20	adopt as a general procedure when we encounter
21	a situation of this sort, it is the
22	responsibility of the work group chair to
23	identify the issue, to assess a priority to
25	
24	the issue, to relay it to Nancy.
	the issue, to relay it to Nancy. And as a matter of course at each

1 Board meeting as a part of the administrative 2 activity that we undergo, this be brought to 3 the Board with the expectation that at that 4 time whatever action is necessary be agreed to 5 by the Board and accepted by whoever or which 6 agency is going to be responsible for that. 7 Is that not practicable method for approaching 8 the problem? 9 DR. ZIEMER: It seems to me it's worth 10 trying that. 11 MS. MUNN: If it doesn't work, we can tweak 12 it. 13 Yes, John. 14 DR. MAURO: Let's say we know that brings us 15 back to our what are we going to call that. 16 In other words we started this conversation 17 off what are we going to call as closed, 18 transferred, imported and exported? So now 19 we've gotten into a place where we say, okay, 20 21 DR. BRANCHE: We're at the transport, 22 export, import part. 23 **DR. MAURO:** That's where we are. We're 24 going to leave, it's going to leave the 25 purview of this room. We all agree. Or it's

1 going to stay within this room. Where we have 2 this now, there are certain items that are 3 going to leave the purview of this room. It's 4 not going to be dealt with under Task Three 5 anymore. It's going to be dealt with some 6 place else. And what we just all agreed is 7 that sometimes where that other place is we 8 don't know. Although we do agree that it 9 should be dealt with here, and unfortunately, 10 we don't know where else to put it. 11 DR. ZIEMER: We could call it a status of 12 exported issues database or something like 13 that. Avoid the parking lot word. 14 MS. MUNN: Yeah, the parking lot concept is 15 good, but the words are wrong. 16 DR. BRANCHE: Status of exported issues, 17 Paul, is that what you suggested? 18 DR. ZIEMER: Exported issues, status or 19 something. 20 DR. BRANCHE: Got it. That's at least --21 DR. ZIEMER: Somebody can think of a better name, but --22 23 DR. BRANCHE: I think that's what John's 24 trying to stimulate. 25 DR. ZIEMER: But at least the exported part

sounds like something is moving as opposed to the parking.

MS. MUNN: Our reassessment of responsibility, something of that nature. I need a good thesaurus right here, and I don't have it.

7 MS. ADAMS: It becomes unassigned items or
8 unassigned issues, I think, until there's an
9 assignment made presumably by the Board.

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DR. MAURO: In a funny sort of way the only area within our purview are the things we want to export. We really don't have within our purview where we think it should go because all we can say is we feel we have a mandate as a working group to deal with a set of procedures and a set of issues.

And every once in awhile we hit an issue that we say we don't think we can deal with this because it's really, for whatever reason we decide we wanted to export it. But do we know where it should go? I guess I'm a little ^. We don't know where it should go. DR. BRANCHE: Actually, I'm going to counter

that a little bit. Actually, you sit through almost all of these work group meetings and

1 several of the work group chairs, almost all 2 of them, are members of some other work group. 3 I would actually add a third dimension 4 potentially, and that is potential 5 reassignment. 6 I mean I think it's in Paul's purview 7 to sort of bring it before the Board and say 8 whether or not, but I think a suggested 9 location for it to go. And if you just don't 10 know that's different, but I think based on my 11 short experience -- I can't use that excuse 12 anymore, but based on my experience with the 13 way the Board and the work groups operate, I 14 think you have a fair idea of where it needs 15 to go. 16 DR. MAURO: Okay, I'm good with that. Now, 17 do we have any role about imports? No. It's 18 the other work groups that want to get rid of 19 theirs. In other words the Site Profile 20 folks, the Dose Reconstruction folks, they 21 say, we don't want to deal with this. Then 22 they've got to get it to, hey, listen, we want 23 to send something over to you. Will you be 24 willing to take it? So we don't even have to 25 talk about that. We don't even have to care.

In other words until it happens and somebody in another group comes and asks us, then we'll say, oh, okay. Then as a work group we say, by the way, we were approached by the Dose Reconstruction work group to please accept this item as a new item for our consideration. Then together we decide where it belongs.

9 DR. BRANCHE: But as Wanda said, that's what 10 happens during this deliberation period at the 11 Board meeting when you have this 12 administrative session. Isn't this, that's 13 when you take your ledger out and you do your 14 horse trading. Forgive the analysis, but 15 that's exactly what you're doing. You do your 16 horse trading. You know, I'll take two if you 17 take one of mine.

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18 MS. MUNN: Exactly. And, of course, we, up 19 to this point, have been fortunate. I think 20 most of the issues that we need to export have 21 almost all been global issues. If there is an 22 exception to that, I can't think of it right 23 offhand. Everything that I can think of is 24 things that we keep encountering time after 25 time after time. And we all agree. This is

1	not just this site or this procedure that is
2	at issue. This is a global issue.
3	DR. MAURO: And as Christine pointed out,
4	that's in our collective judgment. It seems
5	to be a reasonable thing to do.
6	MS. MUNN: Exactly.
7	DR. MAURO: But I think we might be
8	overstepping our bounds as to make the final
9	judgment on where that belongs.
10	MS. MUNN: And the case I was trying to make
11	was, that needs to be the Board's judgment.
12	And that's why I was hoping we could have
13	Nancy tracking for us.
14	Yes, Bob.
15	DR. ANIGSTEIN: What about suggesting a
16	term. How about TBA, to be assigned, instead
17	of parking lot?
18	DR. BRANCHE: Well, we've definitely dumped
19	the parking lot.
20	MS. MUNN: Yeah, we've gone away from that.
21	DR. BRANCHE: The three suggestions that I
22	wrote down that people weren't prepared to:
23	status of exported issues, reassignment of
24	responsibilities or reassessment of
25	responsibilities were three. And now you're

1 offering? 2 DR. ANIGSTEIN: To Be Assigned. 3 DR. BRANCHE: TBA. 4 MS. MUNN: Well, but wouldn't it be TBR, to 5 be reassigned? 6 DR. BRANCHE: Yes. Because it was already 7 on one ledger. It needs to be... 8 MS. ADAMS: Purgatory? 9 DR. MAURO: Limbo, I like limbo. 10 MR. HINNEFELD: Purgatory's taken. 11 MS. MUNN: That would be marvelous, but I 12 don't think that's quite the effect. 13 MR. ELLIOTT: I'm going to throw cold water 14 on your humor here because it's not a funny 15 matter to many folks who are claimants who are 16 waiting for resolution of some of the issues 17 that are holding up their claims. 18 MS. MUNN: No. 19 MR. ELLIOTT: Mark and I were just having a 20 little sidebar here, and if I was saying some 21 of these things I would be having phone calls coming to me. So I think you want to be a 22 23 little bit careful in your conversation here 24 with regard to affected parties. 25 MS. MUNN: And we certainly never mean to be

1 facetious when we're doing that, but you're 2 absolutely correct, Larry. We do get a little 3 rummy toward the end of the day, and our 4 apologies. We certainly do not mean to be 5 delaying or in any way causing any offense to 6 any of the people who we are making every 7 effort to serve as best we can. 8 ANTICIPATED FUTURE APPROACH FOR PRIORITIZING ATTENTION TO 9 ACTIVE ITEMS 10 Is there another aspect of our 11 following procedures here that we need to 12 address? I have some concerns personally and 13 have mentioned in the agenda item itself the 14 question of prioritizing. We have done that 15 pretty much on a case-by-case basis as things 16 have come to us. 17 And as a result, we do have a great 18 many items that still fall in the open 19 category. We've not even bothered to take a 20 look at them. It's not because they are not 21 of some value, but it's because we have deemed 22 them to be of relatively small importance with 23 respect to their impact on dose 24 reconstructions and the other activities that 25 we've undertaken.

1	What is the feeling of the work group
2	with respect to prioritizing and how we should
3	address that in the future? Clearly, it's
4	going to be a different issue now that we will
5	be working, I hope, from our new database, and
6	we will have the ability to sort on a variety
7	of headings.
8	Do we want to include a priority
9	heading for each of our issues or not? And if
10	we do so, how are we going to assure that
11	these numerous open items which we have so far
12	failed to address actually come to the table?
13	I'm open to any suggestions from anyone. Yes,
14	John.
15	DR. MAURO: Taking some guidance from the
16	experience we gained from dealing with the
17	closeout of the issues on Task Four, all of
18	the DR reviews, there are 240, I think
19	altogether cases. We're up to the fifth set
20	of 20, sixth set of 20.
21	And I could tell you the way they were
22	dealt with. There was a paper matrix that got
23	very thick. We started from the beginning and
24	ground our way through. It was hard work and
25	Mark is there diligently, you know, tracked

1 this one by one. I don't recall if we tried 2 to do any prioritization. Now, maybe in that 3 case it wouldn't be appropriate, but I'm one 4 to grind things out. In other words we'll start from the 5 6 beginning and just work our way through. And 7 then today we got through with the first part of -- in other words, by jumping around I feel 8 9 as if things get disoriented. Where are we 10 It's so easy to find out. We looked at now? 11 that procedure three months ago. Let's go 12 back to this one now. I mean, I don't know, I, for one, again like the idea of grinding 13 14 them out. 15 Start from the beginning and the next 16 meeting, well, we left off at this procedure, 17 issue number five in this procedure, and just 18 pick it up right from there and just keep 19 going down the list. I'm putting on the table 20 for consideration by everyone. 21 MS. MUNN: From a technical and procedural 22 viewpoint, I would agree with that. From a 23 reality and political viewpoint, I don't see 24 how we could make that work. 25 MR. MARSCHKE: Could I offer maybe as a

1 compromise that we prioritize the procedures 2 as opposed to prioritizing the individual 3 issues and say, okay, we're going to look at, 4 we give a certain procedure a high priority, 5 and we work off all the issues associated with 6 that particular procedure and close those. 7 And then you're not jumping around from 8 procedure to procedure to catch all the high 9 priority issues, but you're going to catch all 10 the high priority procedures. 11 DR. MAURO: I will respectfully disagree for 12 the following reason. The importance of a 13 given procedure is within its context and 14 application to a particular case. And so I 15 don't think you could just simply de novo or 16 say this procedure's more important than that 17 procedure. 18 I think that depending on the case, 19 you know, that procedure may be the whole 20 ballgame and affect this class of procedures. 21 In another case, let's say it doesn't deal 22 with skin cancer or one that deals with lung 23 cancer, whatever the issue is, that procedure 24 becomes the most important procedure when it 25 comes to that class of cases.

1 So I think I could see us spending an 2 awful lot of time debating which procedures 3 are the more important ones. I think they're 4 all of importance, and it's going to be very 5 difficult for us to prioritize them. I quess 6 that's how I look at it right now. 7 MR. MARSCHKE: Well, let me give you the counterpoint. If we go, if we have a half a 8 9 dozen procedures and each one of them has one 10 high priority finding in it, and we address 11 all those high priority findings, they don't 12 get implemented until the procedure gets 13 revised, until the procedure gets revised. 14 And so addressing all the high priority ones 15 does not really do anything because it doesn't 16 get the procedure revised. 17 **DR. MAURO:** Don't prioritize. I mean, when 18 I look at the procedures and the scorecard 19 that we use, we call them, I think the words 20 we use in terms of the review of the 21 procedures was does the procedure do the 22 following. In other words, it asks a question 23 that's ^ driven ultimately. It's not saying 24 almost, never --25 MR. MARSCHKE: No, John, you're looking at

1	something, we're talking about something
2	different. The first set of comments that we
3	came by with that Roy prioritized the findings
4	as to whether they were high, low or medium
5	priority.
6	DR. MAURO: Is it procedures or findings?
7	MR. MARSCHKE: These are findings.
8	MS. MUNN: Findings, uh-huh.
9	MR. MARSCHKE: And so the question now, that
10	has kind of gone by the way, been set aside
11	for the second and the third and subsequent
12	sets of findings.
13	MS. MUNN: It's been overwhelmed by current
14	events.
15	MR. MARSCHKE: Exactly. And also, it's not
16	in the database as a separate field. It's
17	buried in the comment field, and Nancy is
18	shaking her head yes. She had this. It's
19	hard to go in the database and try and dig
20	that information out. If we want to continue
21	such a thing as this, we, you know, I guess
22	the question before the working group is do we
23	want to continue such a thing as this, and if
24	so, how do we best do it.
25	MS. MUNN: If I remember correctly, in that

1 first set we were, first of all, not quite as 2 overwhelmed as we are now. We didn't have the 3 mass of data that we currently have to deal 4 with. And we also relied pretty heavily on 5 our contractor to help us analyze what that 6 level of priority needed to be for that first 7 group. If we're going to continue to do this, 8 we need to decide how to do it. And if we're 9 not going to continue to do it, then we need 10 to decide what our alternative is. So far I 11 don't think we've gotten there. 12 Yes, high priority. We did it on the 13 first set. 14 DR. ZIEMER: What was the basis for that 15 though? The impact on the individual dose 16 reconstructions? 17 MS. MUNN: I believe so. I think we were 18 looking at the scope of what the total impact 19 was going to be. How crucial was this 20 procedure to moving down the road with dose 21 reconstruction. 22 MR. HINNEFELD: It was the finding, how 23 crucial was the finding --24 MS. MUNN: It was the finding, yes. 25 MR. HINNEFELD: -- to dose reconstructions

because there would be some findings that would speak to the clarity of the procedure or the organization of the procedure, and those normally were granted one for those, but it was put on every finding. And so there are 240 open findings or 237 open findings. To do that same thing now would be to go back to those 237 most of which have not had that, most of which are from the later reviews, and put that on every one of those 237 probably minus the 29 from the CATI. **DR. MAURO:** You see, to me, okay, we're in

12 13 procedure number one, and we hit the first one 14 which is, you know, this ^ uses Roentgens 15 instead of rads. Okay, that's in three 16 seconds. Let's move on to the next one. In 17 other words it's not going to slow us down. 18 We don't have to do that. And when we hit the 19 one that says, my goodness, this is important, 20 we're going to spend the time on that one. 21 So it's almost like embedded in the 22 process itself, the grinding through. We're 23 going to move through, and there are a string

of real easy ones. So to me we're going to

need to deal with these. In other words we're

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all going to agree, yeah, that terminology needs to be cleared up, and let's say clarification is needed. And we move on to the next one. I like the idea of marching through these things. Sometimes we're going to hit a streak where we move real fast, and then we're going to hit slow ones that will slow us down.

DR. ZIEMER: From a practical point of view
-- this is Ziemer again. From a practical
point of view would we end up spending a lot
of time trying to prioritize the findings
versus simply -- it's much easier it seems to
me to prioritize which procedures you're going
to review, you know, prioritize at that level.
And then once the review is done to address
the items that are found across the board.
MS. MUNN: But the Board identifies what
procedures are going to be reviewed.

DR. ZIEMER: Yeah, once that's done.

MS. MUNN: Once that's done then how do we then decide what this group is, are we just going to follow the calendar and --

DR. ZIEMER: What happens is if you end up having to discuss each item to figure out what

1 its priority is, you might as well be 2 discussing it and resolve it. 3 MS. MUNN: But are we going to just simply 4 do the procedures in the order that our 5 contractor provides them to us? 6 DR. ZIEMER: Oh, the procedures. 7 MS. MUNN: If we're going to prioritize the 8 procedures --9 DR. ZIEMER: Well, prioritizing procedures 10 to me is not the same as prioritizing the 11 findings from the procedures. Are we talking 12 about prioritizing the procedures to be 13 reviewed? 14 MS. MUNN: No, no, that's the job of the 15 Board. That's not our job. But once the 16 procedures have been identified and sent to 17 SC&A for their review, then they're going to 18 do them in some calendar manner. We have no 19 control over how they're going to appear to us 20 unless somebody's beating up on them about how 21 they have to have this set of findings immediately. 22 23 Now, what is this working group going 24 to do in terms of priority in addressing the 25 procedures that come to us? If we're going to

1 address them by procedure rather than by 2 finding, are we going to just simply accept 3 the calendar presentation as it comes to us 4 from SC&A or are we going to prioritize by 5 finding? We have both suggestions on the 6 table, that we prioritize by finding and that 7 we prioritize by procedure. Which are we 8 going to do? MR. HINNEFELD: Well, I would really suggest 9 10 we absolutely not prioritize by finding. 11 DR. MAURO: I agree one hundred percent. 12 **MR. HINNEFELD:** You spend just far too much 13 time prioritizing if you went through all 14 these findings and put a priority on these 15 findings. I think there's an argument to be 16 made by going from the calendar and just take 17 the one from the oldest review and work 18 through that. 19 Because, honestly, if we try to prioritize procedures today, it may be 20 21 different three months from today based on how I'm talking about 22 events break down. 23 procedures that already haven't been reviewed 24 and what's a hot issue and what's not. And I 25 think just from looking at the titles there

are a sufficient number of them that you'd say, well, this sounds like it's relatively high. Well, I guess this is relatively high. I mean, there are several coworker approach, dose reconstruction approaches on Those are all going to come out the here. 7 I don't know that you're going to same. accomplish a lot by trying to prioritize a procedure because we don't have any criteria 10 for prioritizing procedures. We'd have to make that up first so it's another delay. You 12 know, prioritizing is another delay built in 13 before we actually start resolving anything. 14 So I guess I'm a proponent of working 15 by the calendar and just say the one from the 16 earliest findings, go through that, and then 17 from the next set of findings just work your 18 way down through them; that would be my 19 suggestion. Because I think it gets us to 20 work at closing findings sooner. MS. MUNN: As I said before, I couldn't 22 agree with you more from a technical and 23 professional standpoint. In reality I have just committed on the record to an important

congressional staffer that we are going to

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make every effort to look at this process that's important to him and to his senator by the next meeting. If we do that, and if it's going to be the first item on my agenda, then the second item on my agenda, if we adopt this we're going to do it by calendar issue, is open procedures from set one. Now, if we do this, then the members

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of this work group need to accept that flak that you're going to get as a result of that and hold firm to all of you hold good and true if that's what we're going to do, then that's what we're going to do. Because we can't, we can certainly make exceptions to any rule, but the reason I wanted to have this discussion is because I'm not certain where we're going with this new process.

18 DR. ZIEMER: One other thing to make note of 19 is that in reviewing this particular one, we 20 have moved from what looks like a general 21 procedure review to what looks more like a site profile review. And for that reason we 22 23 now have the congressional pressure on this 24 particular one that you might not otherwise 25 have if you're just reviewing a particular

1	general workbook or something like that.
2	I think insofar as we have said that
3	these OTIBs and these appendices are in our
4	purview, we have expanded into an area which
5	is going to be more political in that respect.
6	And then we're going to have to deal with the
7	realities of the time clock. This thing is
8	going to involve possibly an SEC petition.
9	And so this is a little different animal than
10	we normally have encountered for this
11	particular work group.
12	DR. BRANCHE: But I would offer, Paul,
13	however, a couple of things. The
14	congressional staffer to whom Wanda made the
15	obligation is not the only one who listens in
16	on the calls for this particular work group.
17	MS. MUNN: No.
18	DR. BRANCHE: And so I
19	DR. ZIEMER: Well, I understand that.
20	DR. BRANCHE: No, I just want everybody to
21	understand that once this kind of obligation
22	has been made to one, don't be surprised that
23	when another site comes up where there's
24	particular sensitivities or a timeliness
25	issue, it might come up again. And I think

1 the Board has always tried to -- individual 2 Board members over work groups and the Board 3 in general have tried to be sensitive to those 4 various issues. I just don't think you should 5 think this is an exception. 6 The other thing I don't think I 7 explained as well as I probably can now is 8 when we were talking earlier about rendering 9 issues to another work group, and that the 10 work group chair who is proffering that 11 particular topic or that particular issue to 12 another work group or to the Board in general 13 on this list that we have yet to name 14 properly, when I suggested that there'd be a 15 sense of priority, I did that because there 16 are a number of sensitivities, some political, 17 some others that that work group chair would 18 have information to support and in offering a 19 sense of priority. 20 Not that anything should be left 21 undone. Not that anything isn't important. 22 But there can be some issues and sensitivities 23 that can be brought to bear by the work group 24 chair when they're suggesting that this issue 25 come out of their work group and potentially

be reassigned to another. And so that's another kind of information that would need to be observed and taken into account by the work group chair that's taking it on. So it isn't always about timing or how long an issue has been on your docket. Ι think what many of you have said is a good procedure. I'm not offering an opinion. I'm just trying to make sure that you bear in mind that there are some other considerations that need to be brought to bear. I'm done. DR. MAURO: I was going to bring up exactly the point that Dr. Ziemer brought up is that we do have, when it comes to Appendix BB, TBD-6000, -6001, it's sort of an anomaly. They really are site profiles and as a result as

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we do have, when it comes to Appendix BB, TBD 6000, -6001, it's sort of an anomaly. They really are site profiles and as a result as Dr. Ziemer pointed out, there is a little bit different kind of attention to be paid to it. It's also true for procedures that are site specific. If you look at the list of 133 procedures that we've reviewed -- that's the total number I think -- you could look at it

and see a whole bunch of them are not site

specific, but there's a handful that are

1	whereby there could be site-specific interest
2	there. And I think the ^ would be Appendix BB
3	because it's actually a site profile.
4	Now there are others that we've worked
5	on I mean, this is just an observation
6	that I know we have a lot of attention, OTIB-
7	0052, which is a construction worker coworker
8	model that has universal applicability to
9	construction workers at sites across, which I
10	know a lot of attention has been given by a
11	lot of folks to that.
12	A big effort went into that. Steve
13	was involved in it. I know that the ones that
14	Arjun completed on OTIB-0090 and -0097 I
15	believe, interaction with the claimants. I
16	mean, what I'm saying is that we probably
17	could sit down and say rather than prioritize
18	all the 133, I'm saying that there probably
19	could be supported in dividing into groups
20	that we feel are generally of greater concern
21	than the rest.
22	I don't know if that's a compromise or
23	something you would not want to do. But I
24	know right now someone could ask me what are
25	the four or five that you're thinking need to

1	hit hard and hit hard now. And I just
2	mentioned a few of them just now. Because I
3	think there's a tremendous amount of media
4	interest and people waiting for the outcome of
5	those.
6	Now whether or not you want to make
7	that one of your reasons why you give it a
8	high priority, that's certainly a judgment of
9	the Board and the working group. But I think
10	that that's really what we have here. We do
11	have a handful. Of the 133, maybe ten or
12	eight everyone recognizes, yeah, there's a lot
13	of interest in those. Whether you want to put
14	them high on the priority or not, that's a
15	tough call.
16	MS. MUNN: Is there a compromise? Is there
17	a way that we can devote a given portion of
18	our deliberations each time to the calendar
19	priority and a given portion of our time to
20	other pressing priorities? Is that the only
21	legitimate way we can address it?
22	Mike.
23	MR. GIBSON: Well, I think, you know, that
24	the process is consuming us. And I just think
25	that I kind of agree with John. We just need

to start at the beginning and go through and work on these things. Who's to say we have to have a fast and set rule that we're going to go by?

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We start at the top and just start working the issues. If something interrupts us, whether it's political or whether it's the need for a higher priority, we can stop and address that issue. But other than that spend our days meeting and resolving issues rather than trying to figure out how to resolve them.

MS. MUNN: The only reason I'm attempting to do that now is because we are shifting gears so markedly from the way we've addressed things in the past to the way we're going to be doing things in the future. And we're going to be relying so much more heavily on the database and its ability to sort material for us.

MR. GIBSON: Well, I guess I'm just saying let's get to work and as we see issues come up with the database, let's stop and address them and go on rather than try and figure out the kinks that could be in the system or that we obviously see. Let's see how it affects us as

we're doing our work. And if we have to stop
and fix them, stop and fix them.
But every issue there's some more
political than others or whatever, but just
about everything we work on in every work
group stems back to some claimant. And the
more time we spend trying to figure out how to
do things as opposed to doing them, it's
affecting someone.
So we're not going to please everyone.
We're going to get political pressure and
everything else, and we might make exceptions
but, you know, I'm speaking for the work
groups I'm on, too, that I chair, too. Maybe
we just need to get to work more instead of
watching how this process is starting to kind
of consume our time.
MS. ADAMS: You hit the nail on the head in
terms of moving to a different approach.
Everything's an iterative process. And so you
start into a new cycle of how you're going to
tackle things, and it's like learning to ride
a bike. I mean, you're going to stumble at
the beginning perhaps and do some things that
six months down the line will seem clumsy

1	because now you've got experience that you
2	didn't have at the forefront.
3	And that therefore, then you can use
4	the benefit of that learning, that clumsy
5	period, to move into becoming a more effective
6	and efficient period from learning how and
7	what the database can and can't do. What
8	going back and looking over some of these
9	things that have been sitting around for
10	awhile might trigger in your mind that if you
11	attack this one, it may have a relationship to
12	something else, and you can kill two birds
13	with one stone or more. I mean, I think
14	you're at a point where you've got to see what
15	happens.
16	MS. MUNN: We have some idea of what we're
17	going to do. I'm not sure whether we've come
18	to a complete conclusion about what we're
19	going to do. I would hope that in the very
20	immediate future, Nancy, will you be able to
21	accommodate these comments that we've made and
22	agreements we have with respect to the
23	changing in terminology so that we can look at
24	our next summary with the new terminology in
25	place?

1 MR. HINNEFELD: You're talking about the new 2 statuses? 3 MS. MUNN: The new statuses, yes. 4 MR. HINNEFELD: They'll have to be entered 5 by SC&A. Nancy looks at the same version I look at. She can't do any data entry. 6 7 MS. MUNN: So the question really needs to 8 go to you and not to Nancy. 9 MR. HINNEFELD: The question has to go to 10 SC&A. 11 MR. MARSCHKE: It goes to me. I think it 12 comes to me. Yes. Yes, we will be able to do that and change, transferred will be changed 13 14 to exported and we will add a, well, what did 15 we decide? We're going to talk to Don Loomis 16 and find out whether we're going to add a 17 source field --MS. MUNN: Yes. 18 19 MR. MARSCHKE: -- or whether we're going to 20 add an imported open, imported closed --21 MS. MUNN: Correct. 22 MR. MARSCHKE: -- so I have that as an 23 action item that I have to talk to Don who 24 will figure that out. And by the time the 25 next Board -- we'll talk to you, obviously,

when I get an answer from Don. And once we get your agreement, it will be implemented before the next working group meeting.

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MS. MUNN: Please, Steve, I'd like to do that very much because I intend to utilize that database to establish our agenda that is going to occur for our 24th meeting.

MR. MARSCHKE: Now, one other thing that we want to make a change to the database, and I don't know. We want to make sure that we have the ability to do sorts on the date of the meeting. Any action items that came from the meeting or from a particular meeting date we want to be able to do a sort on that to see if either of the action items and these were, have been dismissed or --

MS. MUNN: What the status is.

18 MR. MARSCHKE: What the status of those 19 action items are. There's a couple other 20 bookkeeping questions. Maybe this is a good 21 time for me to ask. I would like to ask just, 22 there are housekeeping-type questions I would 23 like to ask about the database. The first one 24 being is, do you want Bob's Appendix BB and 25 his findings into this database or is that

this is a procedures and a documents database? Does that more go into some other database? Right now it's not in this database. Do you want it to be added to this database or not?

4 5 MS. MUNN: What is the opinion of the group? 6 It's my opinion that it goes into this 7 database because this is where it started. 8 Whether it stays here is a different question. 9 But in my opinion it should start here and be 10 incorporated in the database in this work 11 group. Anyone feel differently than that? 12 MR. HINNEFELD: I agree with that, yeah. 13 DR. MAURO: And that includes TBD-6000, -14 6001? MR. HINNEFELD: Yes. If we're going to take 15 16 care of them in here, let's put them in this 17 database. 18 DR. ZIEMER (by Telephone): Yeah, I think 19 that's fine unless it becomes unwieldy. 20 **MR. HINNEFELD:** We're already there. 21 MS. MUNN: Too late. 22 DR. ZIEMER (by Telephone): But you have the 23 ability to separate out a section of the 24 database if you want to. 25 MR. MARSCHKE: Oh, yeah, we can always pull

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1	it out.
2	DR. ZIEMER (by Telephone): If you have a
3	meeting, you can have this part of it.
4	MR. MARSCHKE: Right, exactly. We can only
5	do a sort just on Appendix BB and just
6	The other one is a little bit nit, but
7	we have a status called open-in progress.
8	Right now the database gets confused. When
9	you do a sort on open, you not only get the
10	open number, the procedures, or findings I
11	should say, but you also get the open-in
12	progress findings.
13	DR. ZIEMER (by Telephone): Why don't you
14	just change it to in progress; that implies
15	that it's open?
16	MR. MARSCHKE: We would like the group's
17	permission to do that.
18	MS. MUNN: No objection here. Any
19	objection?
20	DR. ZIEMER (by Telephone): No.
21	MR. MARSCHKE: Thank you.
22	MS. MUNN: Anything else with that regard?
23	DR. MAURO: I have a thought. When you
24	started talking about breaking out procedures,
25	the idea being we're going to have another

work group meeting. Would not it be a good idea to say which procedures do we want to try to review at the next work group meeting? And then we simply print out electronically those as opposed to the full monster. In other words let's say it turns out we do want to cover all of the issues raised

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in Appendix BB for the next meeting. If we know in advance which ones you'd like to address by procedure, there's only 133 ^ is 136 procedures that are in there. And if we started pulling them out, so I guess in a way I was of a mind that we start to drive through from OCAS OTIB-0001.

But in my mind an equally possible way to do it which is very functional is that at the end of every meeting, the working group identifies which ones do you want to take on at the next meeting. And then during that time period NIOSH and SC&A work together on filling and fleshing out that particular one so that when we show up, they'll have dialogue, exchange and filled in a lot of the information and we bring them to the next meeting.

1 Okay, for the procedures which you 2 gave us marching orders on, here's what we've 3 accomplished. And then at that point the 4 working group decides which ones they want to, 5 which issues -- let's say we recommend closing 6 this. We recommend that this be exported. We 7 agree to disagree on this one. We really 8 can't resolve this one, this issue. In other 9 words what I'm getting as is the idea being at 10 least when we come in the door the next time -11 12 -- See, I think this was a very 13 special meeting. Because what happened was up 14 until now we've built the bicycle and today 15 was the first day we tried to ride it. And we 16 fell off the bicycle. But I think the next 17 time maybe as an idea, it wouldn't be a bad 18 idea to say for the next meeting let's see 19 between now and then we can do everything we 20 can so that we could make a meaningful assault 21 on at least these three or four procedures and 22 get that done including, of course, Robert 23 Stephan's Appendix BB. If that's what you'd 24 like us to do, you give us the marching orders 25 and off we go.

1 MS. MUNN: You're one step ahead of me, 2 John. It was my hope that as Chair I would 3 try to do something very similar to that for 4 our next meeting. And then at the end of the 5 next meeting fall into what I hope will be a 6 fairly easy process similar to what you've 7 outlined so that we all will agree in the work 8 group what we're expecting to do the next 9 time. And it will automatically fall out of 10 the database as we begin to look at it. I'm 11 hoping that that will be the case. 12 Let's see, especially since our next 13 meeting is going to be a short one, let's see if I can manage that myself this time. And at 14 15 the end of that next meeting we will undertake 16 to do something very similar to what you have 17 suggested if there's no objection to that from 18 the work group. 19 DR. ZIEMER (by Telephone): Sounds good. MS. MUNN: Good. Are we are a point where 20 21 we can leave this item? 22 DR. ZIEMER (by Telephone): Yes. FINDINGS ON CATI PROCEDURES FROM 1ST SET OF REVIEWS 23 24 MS. MUNN: If we are, then let's move on to 25 the final real item that I had with respect to

1	the findings on CATI procedures from the first
2	set of reviews. A question had been asked
3	about that. Who wants to address that?
4	MR. HINNEFELD: I think this is me.
5	DR. ZIEMER (by Telephone): What is the
6	issue?
7	MR. HINNEFELD: Well, the CATI procedures
8	were Procedures 4, 5 and 17. They've been
9	consolidated into Procedure 90. There's
10	something like 29 findings that are all listed
11	as open. I think we talked about these once
12	long, long ago, but that's okay. Let's leave
13	them open because it's so long ago I don't
14	think it counts.
15	We've provided some initial responses,
16	and there are a number of things that we've
17	done that we're doing in addition to our
18	initial responses. One of our initial
19	responses, in fact, to several of the
20	procedures was the findings spoke to we're not
21	telling the claimants enough information in
22	the CATI. You know, we're not giving enough
23	information.
24	Our response at that time was we don't
25	think the CATI is the place to do that, but we

agree we should give them more information. So we're going to change what we call our acknowledgement packet. In other words when a case is referred to us from the Department of Labor, we send the claimant, it used to be a letter, now it's a packet, acknowledging that we have their claim to do dose reconstruction on.

9 And we've expanded that so now it's a 10 packet. We think it addresses much of the 11 information from those findings. Now, I 12 believe I distributed that, I'll mail them to 13 everybody. We'll send to everybody in the 14 work group, John and some of the principals or 15 whoever you want me to. I'll send you 16 several. If I can get them electronically, 17 I'll just do them electronically so that you 18 can see this is what the acknowledgement 19 packet now looks like.

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20 We believe this addresses what is 21 right to address from these findings in the 22 CATI. The CATI shouldn't say this. It should 23 say something else. We've made some changes. 24 We have recommended some changes in the CATI 25 language to OMB, and because the CATI form was

1	due for renewal anyway. So you have to go
2	back to the OMB and get re-approval to
3	continue to use this data collection device.
4	So we have incorporated in our
5	recommendations, in our version that will go
6	back to OMB, some changes based on some of the
7	findings from these CATI procedures findings.
8	I can share those with you. I
9	actually have hard copies of those today.
10	There are three of them. There's one for an
11	EE claimant, one for a survivor claimant, and
12	one for a coworker. They all have their own
13	script. So those things have been done, and
14	that can be shared today. I can also share it
15	electronically because I have it
16	electronically. So those are some of the
17	actions that we've done.
18	Let me take a look and see what I'm
19	forgetting here. I think some of these
20	findings you'll see, I mean, these findings go
21	way back. These findings were written in
22	what did we say? in '05 or something?
23	MS. MUNN: This was one of the first things
24	we did.
25	MR. HINNEFELD: So these findings go way

1 back so I think some of the things about how 2 well things are described, and of course this 3 is CATI Procedure, I think you'll find there 4 is a better job done now in a dose 5 reconstruction to really show the claimant 6 this is how we use your CATI information. Ι 7 think that's just done. But I don't know that 8 it's something I could show you this procedure 9 was changed to do it. 10 I can just tell you that the dose 11 reconstructions now, they have to address 12 everything that's said in the CATI even if 13 it's not relevant to radiation exposure. If 14 the person mentions in their CATI about their 15 chemical exposure, I was exposed to those 16 chemicals when I worked there, too, we include 17 that in the dose reconstruction report. 18 We say the EE was exposed to these 19 chemicals, but that doesn't include, doesn't 20 count as radiation dose so it doesn't affect 21 this report. So everything they say is 22 included, is addressed in a CATI, in the dose 23 reconstruction. So I think we've done some 24 things like that. 25 Now, of course, there's always the

1 question that somebody's going to say we 2 should have done more, and maybe there is more 3 to do. But I think the first thing to do is 4 for me to get out to you the best I can what 5 our current position is on these, and I can 6 have those out relatively quickly. You know, 7 where we are now, where we expect to be. And 8 in addition, we are revising this PROC-0090 9 now. We are revising PROC-0090 in order to 10 change it to, essentially accommodate the 11 other things that need to be accommodated from 12 the findings to the extent we think we can. 13 One thing I think I should probably 14 mention so that it's not a shock when our 15 response comes over. There's been a certain, 16 there was a certain number of the findings 17 about helping a survivor claimant to the 18 interview and sort of, for lack of a better 19 word, coaching them, but telling them more so 20 that they can -- because they're certainly 21 going to be at a disadvantage from an EE 22 claimant because they're going to know far 23 less about what the work was than an actual EE 24 claimant. 25 EE by the way is energy employee. Ιt

1 means the energy employee is still alive. So 2 in that case we have some concerns about 3 coaching. And people who know about 4 interviewing, which I'm not one, people that 5 know about interviewing say one of the first 6 things you understand when you develop an 7 interview is you don't design it to coach the 8 interviewee. 9 So there are some things like that 10 that we don't believe we'll go along with for 11 that reason. But there are a number of things 12 that we are. And it's just I think it's up to 13 us to get the latest information out to the 14 working group and to the principals at SC&A so 15 we can kind of see where we are and where we 16 want to go before we decide to talk about 17 this. 18 DR. MAURO: Mechanistically, am I hearing 19 that you're going to load up the database --20 MR. HINNEFELD: Actually, I ask you guys to 21 load it for me because I don't write it.

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DR. MAURO: And you guys are not ready to take to the time, so you'll provide us with information and we could look that you would load up --

1 MR. HINNEFELD: We'll suggest to you this is 2 what we would like you to load. This is what 3 we would like you to load. We may send some 4 supporting information, too, that --5 DR. MAURO: Then there'll be a white paper. 6 MR. HINNEFELD: That may want to be attached 7 to it or something like that. 8 DR. MAURO: And that would address, I guess 9 there were two procedures then. There's --10 MR. HINNEFELD: Well, there were actually 11 three originals. Those findings are all now under PROC-0090. And while we're talking 12 about that, this is one of the things you 13 14 asked us to think about all day, had to do 15 with these findings, counting the procedures, 16 the findings by 29. 17 We want to make this recommendation 18 because if it would undo something that was 19 done on my earlier recommendation, so I 20 certainly feel that I'm capable, you know, I 21 don't feel any pride of ownership or pride of 22 ownership. On the other hand it might give 23 you pause about whether you want to listen to 24 my advice any more. 25 But the reason we're counting them

1 twice is because we listed them twice. And 2 the reason we listed them the way we did is 3 because we didn't have findings against a 4 procedure that doesn't exist any more. Well, 5 suppose we just dealt with that. Kept the 6 procedures under four, five and seven, just 7 eliminate PROC-0090 because PROC-0090 has 8 never been reviewed. PROC-0090 has never been 9 reviewed by SC&A. 10 Keep the findings on four, five and 11 seven or 17, and just say in there, in our 12 response, these procedures have been 13 consolidated to PROC-0090, and PROC-0090 will 14 be revised to address these findings. And so 15 in the future people will know they have to 16 look at PROC-0090. And, in fact, we can put 17 it in the title of the finding, you know, now 18 PROC-0090 or something so it's easy to find. 19 That gets your extra 29 findings out of the 20 database. 21 MR. MARSCHKE: Actually, haven't we already 22 done that? Isn't that already --23 MR. HINNEFELD: Well, we did it the other 24 way. They're in there closed under four, five 25 and 17. They're in there as closed.

1 MR. MARSCHKE: But there is a note 2 underneath, there is a note --3 MR. HINNEFELD: On PROC four, five and 4 seven. 5 MR. MARSCHKE: -- on four, five and seven that these findings have now been transferred 6 7 to PROC-0090, and in PROC-0090 there is a 8 corresponding note that this finding came from 9 -- well, there is kind of a cross in the 10 database. MR. HINNEFELD: Well, I think the database 11 12 is fine now except for the fact that we've got 13 29 extra findings. And Mark was talking 14 about, well, Mark was the one that brought it 15 up. We're really overstating the number of 16 closed findings because those findings really 17 aren't closed from four, five and 17. We're 18 just not tracking them there. 19 And so that leads to the conclusion, 20 yeah, well, we're overstating the 29 and so 21 therefore, we've overstated the total number 22 of findings by that same 29 because I think 23 you show that in the closed column. So if we 24 wanted to address that, if we want to deal 25 with that, I'd say you just eliminate the

PROC-0090 piece altogether, reopen, change the status to open on four, five and 17 and then you'll have the right count on the number of findings. It won't really change the quality of the information they're in.

MR. MARSCHKE: But you've just eliminated these 29 findings.

8 MR. HINNEFELD: No, we just opened them up 9 in four, five and 17. And the action is to, 10 what you're saying, the action, these have 11 been consolidated in PROC-0090, PROC-0090 is 12 being revised to address.

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13DR. MAURO: Would you provide also for each14issue how you plan to deal with that issue and15which you agree with and which ones you don't?

MR. HINNEFELD: Yeah, that's sort of what I need to provide really quickly regardless of what we do with the database. I need to do that pretty quickly.

20DR. MAURO: So that will be there, and those21will be considered. These are open-in22progress or these are -- in other words, a23label then for that procedure would be in24progress and here's all the information. And25you put in that information.

1 MR. HINNEFELD: Well, I think it will be in 2 progress when we talk about it. Isn't that 3 what we do? I mean, don't they remain open 4 until we actually have a discussion at the 5 meeting? DR. MAURO: We're doing that right now. 6 7 MR. HINNEFELD: Okay, well, that's okay with 8 me. 9 DR. MAURO: Isn't that what we're doing? 10 MS. MUNN: Yes, that's what we're doing. 11 DR. MAURO: So in effect what I'm hearing is 12 that for those procedures, and we have right 13 now loaded up with our comments, you're going 14 to put underneath each comment a statement as 15 to how you believe this needs to be dealt 16 with. And then so you're going to flesh that 17 out maybe by giving information to Steve. 18 MR. HINNEFELD: Right. 19 DR. MAURO: Our job at that point will be go 20 underneath that and say, okay, yeah, we agree 21 this looks like it resolves that issue. In a 22 similar matter you're going to do, to the 23 extent you can, you're going to try to go as 24 far as you can with Appendix BB. 25 MR. HINNEFELD: Yes, yes.

1 **DR. MAURO:** So at a minimum what I'm hearing 2 right now is for the next work group meeting 3 the extent to which we can go into, all this 4 material between now and the next meeting, 5 this is going to be loaded up, Appendix BB and 6 these three procedures are going to be loaded 7 up in combination by Steve and Stu, and we're 8 going to talk about them next time we get 9 together at a minimum. Now there may be more 10 things you're going to talk about, but it 11 seems to me at a minimum we're going to try to 12 do that. 13 MS. MUNN: Absolutely. Yes, we will. We're 14 all on the same page. We all know what we're 15 doing? 16 MR. MARSCHKE: I don't know what I'm doing. 17 MR. HINNEFELD: Well, we haven't decided 18 really for sure what we're going to do with 19 the database. I don't really care. 20 DR. ZIEMER (by Telephone): As long as it 21 makes sense. 22 MR. HINNEFELD: I don't really care what we 23 do with the database. I just thought that 24 that would be a way to get a count of the 25 number of findings. But I don't really, I

1	mean, I think the quality of the data and the
2	way it's represented is pretty clear right now
3	in the database. I don't have any particular
4	issue with that. But it does screw up the
5	count.
6	MS. MUNN: And it would be nice to not
7	mislead anyone who looks at the bare numbers.
8	It would be very nice. All right, we're happy
9	with that.
10	HOUSEKEEPING; ACTIONS; NEXT MEETING
11	Housekeeping items.
12	MR. MARSCHKE: Can I just say on one of the
13	other OTIBs, OTIB-0052, which is on Nancy's
14	sheet here. It's the 7/30/2007. It's got 16
15	findings against it all shown as open. Well,
16	by the definition of the current definition of
17	open, these 16 have been discussed because I
18	was at the meeting. I gave my presentation.
19	Mel Chew was there as well. He gave his talk.
20	So at a minimum, these 16 should be moved
21	through the in progress out of the open
22	column, into the in progress column.
23	MS. MUNN: Absolutely.
24	MR. MARSCHKE: And maybe what we can do is
25	we can look at NIOSH's responses

1 DR. MAURO: Do we have any responses? 2 MR. MARSCHKE: They have provided the 3 responses. They are loaded up in the 4 database. We can look at the responses and 5 maybe at the next group working group meeting 6 give our recommendations whether or not we 7 agree with the responses. 8 MR. HINNEFELD: I wasn't going to bring it 9 up today, but it was our understanding that 10 certainly several of those 52 we thought were 11 closed. We didn't think any more were due. 12 MR. MARSCHKE: I think you're right on that. 13 DR. MAURO: Is that a third procedure you'd 14 like to give us marching orders on? 15 MS. MUNN: Absolutely. 16 DR. MAURO: Do the same thing with OTIB-17 0052? 18 MS. MUNN: Absolutely. 19 DR. MAURO: Good, we've got three. 20 MS. MUNN: The only reason OTIB-0052 is not 21 on today's agenda was twofold. One I didn't 22 feel like we had room for it. And, two, I 23 didn't have my list in front of me. 24 DR. ZIEMER (by Telephone): And, Wanda, this 25 is Ziemer. I have to bail out at this point.

1	I think we're pretty well done now. Is that
2	correct?
3	MS. MUNN: I believe so. We're just doing
4	housekeeping items, and you know our next
5	meeting
6	DR. ZIEMER (by Telephone): We'll meet prior
7	to the next full meeting in the morning then.
8	MS. MUNN: Yes, yes, you'll get an agenda
9	prior to that time.
10	DR. ZIEMER (by Telephone): Thank you. I'm
11	signing off.
12	MS. MUNN: Thank you. Have a good vacation.
13	Bye bye.
14	MR. MARSCHKE: Wanda, the fourth procedure
15	is OCAS TIB-0011. John got the phone call at
16	lunch time saying that Joyce had reviewed the
17	revised procedure provided by NIOSH, and we
18	are in agreement with the, we have no further
19	comments on it. We are in agreement. We are
20	ready to sign off on those two findings. So
21	those two findings are ready to be, as far as
22	we're concerned, SC&A is concerned, those two
23	findings are ready to be closed.
24	MS. MUNN: Is the group ready to instruct
25	Steve to go ahead and identify those, OTIB-

1 0011, as agreed and closed? 2 MR. MARSCHKE: TIB-0011. 3 MS. MUNN: TIB-0011, sorry. Any --4 DR. MAURO: Could you give us a snapshot --5 MR. HINNEFELD: Let me tell you what they 6 They're on the, these are, the title is are. 7 "Lung Dose Conversion Factors for Thoron 8 Working Level ^". The issue was one of the 9 doses based on the progeny to the various 10 regions of the respiratory tract. The 11 original findings, we looked at the original 12 findings and said, oh, gosh, you're right. We didn't do this right. There's an arithmetic 13 14 error here. So we re-did the arithmetic and 15 submitted, revised the OTIB, ^. Joyce then 16 wanted, was having trouble reproducing the 17 numbers exactly and asked for our 18 calculational files, which we then provided. 19 So that's how we, so Joyce apparently was the 20 phone call there. 21 DR. MAURO: We got a phone call. Joyce did 22 look at those calculations and confirmed that 23 they're correct. 24 MR. MARSCHKE: I mean, we don't have to 25 decide it today, but I mean, it's something

1	that's ripe for decision, if not today then on
2	the 24 th I guess.
3	MS. MUNN: There's no reason why we
4	shouldn't make the decision today. Is there
5	any reason to keep this on the open items
6	list? Is it closed?
7	MR. HINNEFELD: Sounds closed to me.
8	DR. MAURO: We recommend closing it. SC&A
9	recommends closing it.
10	MS. MUNN: Closed resolved.
11	Any other items, Steve?
12	MR. MARSCHKE: No, I think I'm done.
13	MS. MUNN: Good. We'll expect that to
14	appear on the database as closed. And we have
15	scheduled our next meeting for June 24 th , 8:30
16	a.m. in St. Louis, at least three hours,
17	possibly three and a half if we can stretch
18	it.
19	DR. BRANCHE: I'll work with you to see what
20	other kind of issues come up.
21	MS. MUNN: We'll see what happens between
22	now and then.
23	Does anyone want to attempt to go
24	further out than June in placing another
25	meeting for us on the calendar? We know that

1	one's going to be short. We probably will not
2	get too much accomplished. If we're going to
3	at the end of that meeting start our new
4	process of setting our agenda for the
5	following meeting based on our manipulation of
6	the database, then we are likely to have a
7	fairly significant list to address at our next
8	meeting following that. Any feelings about
9	that?
10	(no response)
11	MS. MUNN: I'd like to try to choose a date
12	in July for a meeting.
13	DR. BRANCHE: My calendar might be ^.
14	MS. MUNN: What does your calendar look like
15	the second week in July?
16	DR. BRANCHE: The second full week?
17	MS. MUNN: Yes.
18	DR. BRANCHE: Like the week of the 14 th ?
19	MS. MUNN: No, the week of the 7 th .
20	DR. BRANCHE: That's when we're supposed to
21	be on the west coast. That's not good for me.
22	MR. PRESLEY: Right now the week of the $14^{ m th}$
23	would be good for me.
24	DR. BRANCHE: The week of the 14 th would be
25	much better for me.

1	MS. MUNN: Tuesday, the 15 th ?
2	DR. BRANCHE: I haven't heard any, I don't
3	know if your two other Board members are on
4	the line.
5	MS. MUNN: I don't think so.
6	MR. MARSCHKE: The Health Physics Site
7	meeting is that week. Paul will probably be
8	at the
9	MS. MUNN: That's not good.
10	DR. BRANCHE: The following week the only
11	day that's a problem is the 22^{nd} . I could do
12	any other date that week. Of course, summer
13	schedules make Friday travel more difficult
14	than any other Friday to be honest.
15	MR. PRESLEY: How about the 21 st ?
16	DR. BRANCHE: I could do the 21 st .
17	MR. PRESLEY: Sunday travel.
18	DR. BRANCHE: Nine thirty is easy for me to
19	travel the same day.
20	MS. MUNN: Monday, the 21 st , doable?
21	(no response)
22	MS. MUNN: Monday, the 21 st , face-to-face,
23	9:30 a.m., Cincinnati.
24	DR. BRANCHE: Nine-thirty?
25	MS. MUNN: Yes.

	274
1	DR. BRANCHE: Until five?
2	MS. MUNN: Correct.
3	Anything else for the good of the
4	Order?
5	(no response)
6	MS. MUNN: If not, you are released eight
7	minutes early. We are adjourned. Thank you
8	so much. Everyone still on the phone thank
9	you for participating.
10	(Whereupon, the working group meeting was
11	adjourned at 4:52 p.m.)
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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 May 20, 2008; and it is a true and accurate transcript of the testimony captioned herein.

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

WITNESS my hand and official seal this the 7th day of March, 2009.

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