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 Cincinnati, Ohio, on Aug. 21, 2008.

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

CONTENTS

Aug. 21, 2008

| OPENING REMARKS DR. LEWIS WADE, DFO | 6 |
|---|------------|
| INTRODUCTION BY CHAIR MS. WANDA MUNN | 9 |
| TRACKING SYSTEM REPORT AND CONVERSION TO SQL STATUS SC&A/ ADAMS | 12 |
| DATABASE UPDATE: 29 PROC 0090 ISSUES MARSCHKE | 24 |
| 13 TBD 6000, APP BB - NIOSH RESPONSE TO ELECTRON ENERGY VALUE DIFFERENCES OTIB-0008, 010, 0023 | 52 |
| OTIB 0052: NEW CLARIFYING STATEMENTS AND ELECTRON DATA REVIEW HINNEFELD | 82 |
| | |
| OTIB 0070: STATUS (SC&A REPORT EXPECTED BY 8/31 FO NIOSH RE-REVIEW) BEHLING | R 123 |
| NIOSH RE-REVIEW) | |
| NIOSH RE-REVIEW) BEHLING | 123 |
| NIOSH RE-REVIEW) BEHLING INDIVIDUAL ITEM REVIEW - 2 ND SET | 123 148 |
| NIOSH RE-REVIEW) BEHLING INDIVIDUAL ITEM REVIEW - 2 ND SET | 123 148 |
| NIOSH RE-REVIEW) BEHLING INDIVIDUAL ITEM REVIEW - 2 ND SET | 123 148 |
| NIOSH RE-REVIEW) BEHLING INDIVIDUAL ITEM REVIEW - 2 ND SET | 123 148 |

TRANSCRIPT LEGEND

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

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

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

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

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

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1 PROCEEDINGS 2 AUGUST 21, 2008 3 (9:30 a.m.) 4 OPENING REMARKS 5 DR. WADE: Good morning. This is the workgroup 6 conference room. We're just about ready to 7 begin, so bear with us just another minute or 8 two. 9 (Pause) 10 Ray, when you're ready. 11 THE COURT REPORTER: I'm ready, sir. 12 DR. WADE: You're ready? Wanda, you're ready? 13 Good morning. This is Lew Wade, and I'm acting 14 as Designated Federal Official for this meeting 15 of the subcommittee on procedures review. That 16 -- workgroup, excuse me, workgroup on 17 procedures review. That workgroup is ably 18 chaired by Wanda Munn; members Gibson, Griffon, 19 Ziemer, with alternate Presley. Munn, Gibson, 20 Griffon and Ziemer are all present here in the 21 room. 22 Let me ask if there are any Board members who 23 are participating by telephone in this 24 workgroup call. Are there any Board members 25 who are on this workgroup call by telephone?

| 1 | (No response) |
|----|--|
| 2 | Okay, good. We don't have a quorum of the |
| 3 | Board, and that's appropriate for a workgroup |
| 4 | meeting. |
| 5 | What we'll do is go around the table here and |
| 6 | do our introductions, then we'll go out into |
| 7 | telephone land and do our introductions. We'll |
| 8 | have a little bit of a discussion of telephone |
| 9 | etiquette, and then we'll begin the workgroup |
| 10 | meeting. |
| 11 | So again, this is Lew Wade. I'm acting as |
| 12 | Designated Federal Official, and I work for |
| 13 | NIOSH. |
| 14 | MR. RAFKE: Michael Rafke, HHS, OGC. |
| 15 | MR. GRIFFON: Mark Griffon, Advisory Board |
| 16 | member. |
| 17 | MR. MARSCHKE: Steve Marschke with Sanford |
| 18 | Cohen & Associates. |
| 19 | MR. GIBSON: Mike Gibson, Advisory Board |
| 20 | member. |
| 21 | DR. MAURO: John Mauro, SC&A. |
| 22 | MS. MUNN: Wanda Munn, Advisory Board member |
| 23 | and chair of this commi working group. |
| 24 | DR. ZIEMER: Paul Ziemer, Advisory Board |
| 25 | member. |
| | |

1 MR. HINNEFELD: Stu Hinnefeld, NIOSH. 2 MS. ADAMS: Nancy Adams, contractor, NIOSH. 3 DR. NETON: Jim Neton, NIOSH. 4 MS. THOMAS: Elyse Thomas, ORAU. 5 Those are the folks around the DR. WADE: 6 table. Let's out onto the telephone and hear 7 from other NIOSH/ORAU team members who are on 8 the call. 9 MR. SIEBERT: Scott Siebert, the ORAU team. 10 DR. WADE: Other NIOSH/ORAU team members on the 11 call? 12 (No responses) 13 How about SC&A team members on the call? 14 DR. ANIGSTEIN: Bob Anigstein, SC&A. 15 DR. WADE: Good morning, Bob. 16 DR. MAKHIJANI: Arjun -- Arjun Makhijani, SC&A. 17 DR. WADE: How are you, Arjun? 18 Thank you. DR. MAKHIJANI: 19 DR. WADE: Other SC&A team members on the call? 20 (No responses) 21 How about other federal employees who are 22 working on this call? Other federal employees? 23 (No responses) 24 Do we have any members of Congress or their 25 representatives who are participating on this

1 call? 2 (No responses) 3 Is there anyone else who'd like to be 4 identified for the record as being on this 5 call? (No responses) 6 7 Anyone at all? 8 (No responses) 9 Okay. Well, again, by way of phone etiquette, 10 we could be all much more productive if you 11 speak into a handset and not a speaker phone 12 when you're participating. Mute the instrument 13 that -- that you're using when you're not 14 actively engaged. And if you don't have a mute button, star-6 will mute the instrument and 15 16 then star-6 will unmute the instrument, if 17 that's an English word, and we'll do well at 18 the meeting. 19 Wanda? 20 INTRODUCTION BY CHAIR 21 MS. MUNN: Good morning, and thank you all for 22 being here today. We're going to try to move 23 through the procedure workgroup agenda items 24 which I sent out by mail over the weekend, but 25 not particularly constrained by any specific

1 order. We'll move around as we need to. 2 I'm hoping that this will be one of the first 3 meetings where we will all be working primarily 4 from the ABRWH procedures issues tracking on 5 our -- on our respective laptops rather than from printed data that we've had in the past. 6 7 It's my personal goal to try to have this be 8 the first meeting where we undertake our 9 efforts to move through each of these items in 10 the fashion that we had agreed earlier, which 11 was -- once having gone through the first set 12 thoroughly, which we completed with our last 13 meeting -- we would address the second set. 14 And then, as time allowed, address the third 15 set, going through each one in order, rather 16 than moving around and selecting priority 17 fashion, as we've done in the past. 18 Is that amenable to all the folks here, and 19 have I misstated our objective? Are we all 20 okay with that? 21 Yes, John. 22 DR. MAURO: Yeah, I'd just like to say that I -23 - I did not bring my remote connection computer 24 so I'm going to look over your shoulder. And 25 the other thing I had thought of that might

1 make it easier for everyone -- I don't know if 2 that's possible -- but to actually project what 3 everyone's -- what's on your screen through 4 that machine over there. Is that something 5 that can be done? So then everyone really 6 knows we're all looking at the same page. 7 MS. MUNN: That would be excellent if we could 8 do that. And since my guess is that Nancy's 9 probably the person seated at this table with 10 the most intimate knowledge of the working base 11 -- hmm? Who are you pointing at, Steve? 12 MR. HINNEFELD: Well, I'm wired up to it. 13 MS. MUNN: Are you? 14 MR. HINNEFELD: I'm wired up to it. Let's just leave my computer live-wired up to it. 15 16 MS. MUNN: Let's do, by all means. 17 MR. HINNEFELD: And I'm trying to figure out 18 how to use the... 19 There'll be a brief pause while we MS. MUNN: 20 familiarize ourself with some of the electronic 21 equipment that we've opted to use here. 22 (Pause) 23 MR. HINNEFELD: Now I have to warn you, this 24 manipulation is relatively slow. 25 MS. MUNN: Well, that's quite all right, my

1 manipulation is slower, so no matter how slow 2 it is, Stu, yours will be better. I'm sure of 3 it. TRACKING SYSTEM REPORT AND CONVERSION TO SQL STATUS 4 5 Before we actually get into that, let's take as 6 our first item of discussion the procedures 7 action -- procedures issues tracking system. 8 As we have been working on it in the past, 9 especially with respect to the conversion to 10 SQL, at our last meeting we were well along 11 with that and I have no feel for what's 12 transpired since that time. So I'm hoping that 13 two things can occur. I hope that Steve 14 Marschke and Nancy Adams can give us respective 15 information with -- concerning where their 16 groups are with our tracking system and how 17 we're doing. Which of you needs to go first? 18 MS. ADAMS: Well --19 MS. MUNN: Nancy? 20 MS. ADAMS: -- in the conversion -- in the 21 process of the conversion, we've got the 22 numbers square from both SC&A's side of the house as well as NIOSH's. 23 24 MS. MUNN: Excellent. 25 MS. ADAMS: I met with Leroy on Tuesday

1 afternoon, who is the head of the programming 2 group at OCAS, and they're working on the final 3 part of the system to get it up and distributed internally within NIOSH so that people can test 4 5 it and play around with it. I talked to him 6 about some enhancements in terms of the 7 reporting functions which he has. But in terms 8 of the data, yesterday I dropped off a copy of 9 the data and I can -- we can e-mail this 10 around. Of the first set, the first 182 11 findings, there are none that are in the, 12 quote/unquote, open status. There are 131 that are closed. There are 44 in abeyance. 13 There 14 are 44 labeled "addressed in findings." And there are three that were transferred. 15 16 MS. MUNN: Forty-four or four "addressed in 17 findings?" 18 MS. ADAMS: Four. 19 MS. MUNN: Four. Thank you. 20 MS. ADAMS: And 44 in abeyance. 21 MS. MUNN: Correct. 22 MS. ADAMS: Right. 23 MS. MUNN: Thank you. 24 MS. ADAMS: Set two, there's 112 for the total 25 number of original findings; 37 are open, three

1 are in progress, five in abeyance, four are addressed in findings, ten were transferred and 2 3 53 are closed. 4 MR. GRIFFON: Now I know I'm going to kick 5 myself for asking this, but what's the 6 difference between open and in progress? 7 MS. ADAMS: Open's definition is no meeting 8 discussion has occurred concerning --9 MR. GRIFFON: Okay, so --10 MS. ADAMS: -- this finding. 11 MR. GRIFFON: -- in progress would be there has 12 been --13 MS. ADAMS: Right. 14 MR. GRIFFON: -- discussion. 15 MS. MUNN: Uh-huh. 16 MS. ADAMS: Do you want me to go on with the 17 rest of them? 18 MS. MUNN: Yes, please. 19 MS. ADAMS: Okay. The third set, there were 16 20 findings. None are open, six are in progress, 21 one is in abeyance, one is addressed in 22 findings, two are transferred and six are 23 closed. 24 MR. HINNEFELD: That was chronologically the 25 third report, but I don't think that was the

1 third set. 2 OTIB-52, that's OTIB-52. 3 MS. MUNN: Yes, yes, the --4 MS. ADAMS: That's the July 30th. 5 MS. MUNN: Chronologically we understand that we have some additional priority items that 6 7 were inserted, just --8 MR. HINNEFELD: There -- there are three big 9 sets. There are first, second and third sets. 10 MS. MUNN: Correct. 11 **MR. HINNEFELD:** There are several other like 12 single documents --13 MS. MUNN: Exactly, exactly --14 MR. HINNEFELD: -- that are on --15 **MS. MUNN:** -- yes, we understand that. We 16 understand that the third set, as we will use 17 that term later, is the 10/29/2007 group. 18 That's the set. But chronologically, we're --19 we're maintaining this table chronologically. 20 So thanks, Nancy, go -- go ahead. 21 MS. ADAMS: The findings submitted on September 22 20th --23 MS. MUNN: Uh-huh. 24 MS. ADAMS: -- 2007, there were eight findings. 25 None are open, one is in progress, two are in

1 abeyance, five are addressed in findings. 2 The October 29th, 2007 finding dates -- this is 3 what you're referring to as the third set? Third set, correct. 4 MS. MUNN: Uh-huh. 5 MS. ADAMS: There are 145 findings, and all 145 6 are open. 7 The November 9th, 2007 findings, there were 8 nine total findings and nine are open. 9 And the April 21st, 2008 set of findings, there 10 were 13, and the 13 have all been transferred. 11 So that gives us totals of 485 total findings 12 for all of those submission dates; 191 of those 13 are open, ten are in progress, 52 are in 14 abeyance, 14 are addressed in findings, 28 are 15 transferred, and 190 are closed. 16 MS. MUNN: So Steve, your numbers agree. Ιs 17 that right? 18 MR. MARSCHKE: My numbers agree, yeah. The 19 only thing I would -- I have put together, and 20 I quess we can kind of show these -- a little 21 graph which kind of shows the history over the 22 last four months of -- of the -- of the 23 statuses and how we've been making some 24 progress in moving the issues from the open 25 column to the closed column. I'm also sending

1 you basically the -- the -- the copy of -- the 2 second sheet is also really what Nancy has been 3 reading from. 4 MS. MUNN: No changes -- no differences there. 5 And there's no differences. MR. MARSCHKE: But you can see on this -- on this little bar chart 6 7 -- I think you see from May, June, July and 8 August and how the -- the -- the issues on the 9 bottom are the ones that have closed, and you 10 can see we've progress from about 30 percent of 11 the issues being closed in May to about 39 12 percent, almost 40 percent being closed in --13 in August. 14 The open issues have decreased. If you look at 15 the top -- the darker color on the top of the 16 chart, there were about 50 percent of the 17 issues were open in -- in May, and right now we 18 have about 39 percent of the issues open in 19 August, so we are making some progress in -- in whittling down the number of open issues and --20 21 and working our way through this -- this --22 DR. MAURO: Steve, I've got a question. The --23 so the -- the bar chart is a percent number and 24 that's the percent of the 485? 25 MR. MARSCHKE: Well, the percentage -- it -- it

| 1 | kind of the number kind of changes. There |
|----|--|
| 2 | was some addition for example, I'm not sure |
| 3 | that the first of May chart, for example, |
| 4 | includes the 13 it may have started out that |
| 5 | there were that the absolute number may |
| 6 | change from chart from month to month. |
| 7 | MS. MUNN: Especially as we get transfers in. |
| 8 | MR. MARSCHKE: If we get transfers in, yeah. |
| 9 | For example, the the 13 that came on on |
| 10 | April 21st, I'm not sure that they were |
| 11 | included in the May column on here, so it may |
| 12 | have only been 473 in in pure numbers, but - |
| 13 | - so that's kind of one reason why I put it in |
| 14 | percentages, because in numbers it would the |
| 15 | numbers would differ. |
| 16 | MS. MUNN: Excellent. The bar chart's helpful. |
| 17 | It gives me, personally, a good feel. |
| 18 | MR. MARSCHKE: The other thing I'd like to say |
| 19 | is we've been kind of updating and keeping |
| 20 | keeping the data in the database. I've been |
| 21 | trying to keep that current as much as |
| 22 | possible, but I have not been making any |
| 23 | enhancements to the Access version of the |
| 24 | database because it's a short-timer, is my |
| 25 | understanding, and so basically it would have |
| | |

| 1 | been just kind of a waste of effort. I know |
|----|---|
| 2 | one of the things that we wanted to do and |
| 3 | Wanda and we had talked about doing was was |
| 4 | putting a identifier next to each one of these |
| 5 | finding dates so that we would know that the |
| 6 | 7/30/2007 date was associated with OTIB-52. |
| 7 | MS. MUNN: Uh-huh. |
| 8 | MR. MARSCHKE: I had I didn't have Don |
| 9 | Loomis do that because I figured it's going to |
| 10 | be lost in the transfer anyways, and so I |
| 11 | really stopped basically stopped work on |
| 12 | making enhancements to the database and just |
| 13 | really keep the focused on keeping the data |
| 14 | up-to-date as much as possible. |
| 15 | MS. MUNN: I think that's appropriate, Steve, |
| 16 | especially in view of the fact that we have the |
| 17 | same date identifiers on our tracking base, and |
| 18 | if we if I really need to know what 9/20/07 |
| 19 | is, all I have to do is go to my database and |
| 20 | pull it up. And it's it will tell me what |
| 21 | 9/20/07 is. I was going to show myself how |
| 22 | easy that was, and since I had them listed |
| 23 | MR. GRIFFON: Timed out. |
| 24 | MS. MUNN: Well, yes, I've sorted by alphabet |
| 25 | rather than by than by date, so I'm doing it |
| | |

1 to myself. But in any case, all we have to do 2 is check our database and we can -- can see 3 that. So I -- I think you're assuming 4 appropriately that --5 MR. MARSCHKE: Okay. -- there's no need to continue with 6 MS. MUNN: 7 that type of change and addition. 8 We are where we need to be with the SQL, I'm 9 assuming --10 MS. ADAMS: Yes. 11 MS. MUNN: -- since last month. 12 MS. ADAMS: There is also a report that does give you the breakout. We can get out of the -13 14 - the NIOSH version of the database now -- that 15 tells you what the procedure is and whether --16 how many findings associated with it and 17 whether it's got findings that are closed, 18 open, in abeyance, transferred, et cetera. 19 So... 20 MR. GRIFFON: Is the SQL version on the O drive? I'm still --21 22 MS. ADAMS: Not yet. 23 MR. GRIFFON: I just e-mailed for a password 24 'cause I -- I don't want to log in three times 25 _ _

1 MR. HINNEFELD: Right. 2 MR. GRIFFON: -- and get --3 MR. HINNEFELD: No, we have a -- there is 4 actually a -- a sample version that --5 MR. GRIFFON: Okay. MR. HINNEFELD: -- we can see in our office, 6 7 but I don't know that it was actually -- it 8 wasn't fully loaded. It hasn't even been 9 rolled out for OCAS use yet. 10 MS. MUNN: But you're close. Right? 11 MR. HINNEFELD: I believe we're fairly close. 12 MS. MUNN: Excuse me, I'm groping for some 13 notes that I had with respect to that, among 14 other things. 15 You had originally said that it should be up 16 and running by September, internally. Do you 17 still anticipate that to be the case? 18 MR. HINNEFELD: I believe that's the case. 19 MS. ADAMS: Yeah, when I talked to Leroy, he 20 said that -- that that was still their hope. 21 That -- I mean they're still -- they've got a 22 lot of data still to load because they're --23 they're creating relationships so that with --24 with any one of these documents you'll be able 25 to see how many claims are affected. You'll

1 also be able to know how man -- which sites they 2 affect, whether they're overarching or whether 3 they're site-specific. So -- so it'll be -there'll be a lot more stuff associated with --4 5 with each -- each record that will relate 6 information that's important to the Board and 7 to the working group. 8 MS. MUNN: Good, we will -- is there any 9 possibility that -- that we can have a very 10 quick, five-minute update at our next meeting, 11 or is that too close? Will there be any 12 additional work done on it by that time, you 13 think? 14 MR. HINNEFELD: I don't know. That's... MS. MUNN: Well, I'll probably ask at that 15 16 time. 17 MR. HINNEFELD: I'll -- I'll try to figure out 18 if I can (unintelligible). I'll talk to Leroy 19 about it. 20 MS. MUNN: I just -- we don't have -- we don't 21 _ _ 22 MR. HINNEFELD: See, I'll be out of pocket --23 MS. MUNN: -- have a feel for how much effort -24 25 MR. HINNEFELD: I'll call him.

1 MS. MUNN: -- is available to be --2 DR. ZIEMER: It's only two weeks off. 3 MS. MUNN: I know, it's only --4 MR. HINNEFELD: Yeah, I mean that's only --5 that's --6 MS. MUNN: It's only two weeks off, but I don't 7 know how much time is available for the people 8 who are actually doing this particular work, so 9 -- I'll just ask for it --MR. HINNEFELD: That would be awful close. 10 11 MS. MUNN: Yeah, I would think so. 12 MR. HINNEFELD: I'll let you know on the day, I 13 suppose, what we --14 MS. MUNN: Oh, that's -- that's fine. Ιf there's --15 16 MR. HINNEFELD: I mean I'll be --17 MS. MUNN: -- something to report, that's good. 18 If there isn't, fine. 19 MR. HINNEFELD: I'll be a terrific rookie at 20 it. 21 MS. MUNN: Well, we -- we have to do --22 MR. HINNEFELD: Which is normally what I am 23 anyway, so I'll -- I'll look kind of familiar. 24 DR. WADE: You're terrific. 25 MS. MUNN: Yeah. We want it to be done right

| 1 | so that we all of us don't have to struggle, |
|----|---|
| 2 | which'll be helpful if we can do it. |
| 3 | Is there anything else that needs to be said |
| 4 | about the database at this time? Any |
| 5 | questions? |
| 6 | (No responses) |
| 7 | DATABASE UPDATE: 29 PROC 0090 ISSUES |
| 8 | Otherwise, thank you. Let's take up the |
| 9 | database update, starting with things that are |
| 10 | left over from PROC-90. We spent a significant |
| 11 | amount of time discussing that at our last |
| 12 | meeting. We left a few things hanging. We had |
| 13 | something like 48 in abeyance and 29 open items |
| 14 | from it. We closed the first four. We |
| 15 | transferred number six to PROC-92. That was |
| 16 | supposed to happen. We haven't checked I |
| 17 | haven't checked to see if that has occurred. |
| 18 | One moment, we're passing Nancy's summary |
| 19 | status Steve's summary status. |
| 20 | MR. MARSCHKE: Wanda, that might help you |
| 21 | because that basically is is how we |
| 22 | dispositioned the issues on the PROC-90 the |
| 23 | PROC-90 issues. |
| 24 | MS. MUNN: Ah, you have that already listed. |
| 25 | Very good. |
| | |

| 1 | MR. MARSCHKE: Yeah, that's why I'm passing out |
|----|--|
| 2 | that's why when you started going you |
| 3 | know, which ones the first four were closed, |
| 4 | that's this handout that I just gave I |
| 5 | only brought ten copies, so |
| 6 | MS. MUNN: Uh-huh, that's fine. That's fine. |
| 7 | The PROC-90 is in its appropriate alphabetic |
| 8 | yeah, PROC-90, yeah. |
| 9 | DR. MAURO: There was a whole sheet, though. |
| 10 | Did you did you hold onto one of those? |
| 11 | MS. MUNN: Yeah. |
| 12 | DR. MAURO: You got that. PROC-90. |
| 13 | DR. ZIEMER: Did you get that? |
| 14 | MS. MUNN: Yes, I did |
| 15 | MR. GRIFFON: Are we lo are we |
| 16 | MS. MUNN: I did. |
| 17 | MR. GRIFFON: on line up there? Can you |
| 18 | pull these up, PROC-90? |
| 19 | MR. HINNEFELD: You want all status |
| 20 | MR. GRIFFON: I'm still waiting for my |
| 21 | password. I hope (unintelligible) in the |
| 22 | office. |
| 23 | MS. MUNN: I probably (unintelligible) mine |
| 24 | out. |
| 25 | MR. GRIFFON: I just e-mailed him. |
| | |

1 MS. MUNN: Does anyone have a copy of that, 2 which I thought I had in my hand but I seem to 3 have --4 DR. ZIEMER: Here it is. 5 MS. MUNN: -- handed it away. 6 DR. ZIEMER: Here it is. 7 MS. MUNN: Ah, thank you. Thank goodness other 8 people are able to help me here. That's why I 9 passed it on, 'cause I knew I had one. 10 Was item two transferred to PROC-92? Has that 11 actually occurred? 12 MR. MARSCHKE: The -- I have updated the 13 database to reflect these new statuses. 14 MS. MUNN: Good. So anything that's shown on 15 your sheet you handed us here has in fact 16 transpired. It's already on the database. 17 MR. MARSCHKE: It's on -- yeah, the database is 18 -- this is a current reflection of the 19 database. 20 MS. MUNN: So we won't have to go shopping to 21 see that. 22 MR. MARSCHKE: And this is my understanding of 23 what was agreed upon at the July 21st meeting. 24 MS. MUNN: Uh-huh, meeting. 25 MR. MARSCHKE: And I did circulate -- before I

| 1 | did the update, I did circulate to Stu and |
|----|---|
| 2 | Wanda and Arjun, I think were the three parties |
| 3 | most interested in PROC-90 and and solicited |
| 4 | their input. |
| 5 | MR. HINNEFELD: I'm trying to get that status |
| 6 | on that third sort on. |
| 7 | MS. MUNN: Well, we should be okay because, as |
| 8 | Steve says, this has already gone on it's |
| 9 | already |
| 10 | MR. GRIFFON: But are we planning on discussing |
| 11 | these findings or just the status of the in |
| 12 | abeyance or how they've shifted and moved in |
| 13 | the database? |
| 14 | MS. MUNN: What |
| 15 | MR. GRIFFON: I mean |
| 16 | MS. MUNN: what my preference would be is to |
| 17 | review the status of those that are in |
| 18 | abeyance. |
| 19 | MR. HINNEFELD: Oh, okay. Well, then I would |
| 20 | sort on by I've got them now. |
| 21 | MS. MUNN: They should have. |
| 22 | MR. HINNEFELD: I'm just I could sort them |
| 23 | on if you want to wait another few minutes, |
| 24 | I can sort them |
| 25 | MS. MUNN: No, that's quite all right. I think |
| | |

| 1 | we can tick them off as they're here. |
|----|---|
| 2 | MR. HINNEFELD: Okay. |
| 3 | MS. MUNN: The first one is 07, no procedure or |
| 4 | requirement for coworker interview or |
| 5 | explanation. |
| 6 | MR. HINNEFELD: Right. Well, the ones that are |
| 7 | in abey are in abeyance because the |
| 8 | procedure's in revision. It's taking into |
| 9 | account these these findings is the driver - |
| 10 | - certainly one of the drivers for the |
| 11 | revision. |
| 12 | MS. MUNN: Uh-huh. |
| 13 | MR. HINNEFELD: I don't know that I have a |
| 14 | resolution for the specific findings yet, you |
| 15 | know, and how the resolution will be presented |
| 16 | in the procedure revision, some schedules of |
| 17 | it. |
| 18 | MS. MUNN: Well, Stu, I don't want to put you |
| 19 | on the spot. Perhaps it would be more |
| 20 | beneficial and expedient for all of us if you |
| 21 | were aware of changes that had occurred in the |
| 22 | "in abeyance" group that we have here, which is |
| 23 | |
| 24 | MR. HINNEFELD: Well, I can't tell you any |
| 25 | specific changes that have been made. |
| | |

1 MS. MUNN: Okay. 2 MR. HINNEFELD: The revision to the procedure -3 - to any procedure is schedule to be -- start 4 internal review in ORAU in September. 5 MS. MUNN: Oh, good. 6 MR. HINNEFELD: Early September. 7 MS. MUNN: All right. That's good information 8 in itself. 9 MR. GRIFFON: Do we know that -- can someone read to me the full finding? I mean I think 10 11 it's coworker interviews. What else does it 12 say? It's sort of -- it's cut off there, 13 but... 14 MR. HINNEFELD: Should be able to get that. 15 MR. GRIFFON: I'm sorry --16 MS. MUNN: It's 07. 17 MR. GRIFFON: -- a few minutes. 18 MR. HINNEFELD: No procedure or requirement for 19 coworker interviews -- can you read that now? 20 MS. MUNN: Yes. MR. HINNEFELD: -- or explanation of if 21 22 coworkers are not interviewed. 23 MS. MUNN: Right. And this -- without even 24 going to the other "in abeyance" items, this 25 brings up one of the issues that we discussed

1 at considerable length at our last meeting, which is the use of the word "coworker." Has 2 3 any discussion taken place inside the agency 4 with respect to what kind of change we could 5 make to the too-common use of that word that 6 would be more beneficial? 7 MR. HINNEFELD: Not in -- not in particular, I suppose. I remember we talked about coworkers 8 9 were used in several different --10 MS. MUNN: Uh-huh. 11 MR. HINNEFELD: -- you know, used in different 12 ways --MS. MUNN: 13 Yes. 14 MR. HINNEFELD: -- around the -- in -- in and 15 around the -- the program and -- and maybe 16 rather than calling everything "coworker," 17 having specific usage for coworker in a 18 specific -- you know, something else meaning 19 something else. And no, there's not really 20 been much discussion about that. 21 MS. MUNN: Is there going to be an opportunity 22 for us to have any additional intelligence on 23 that by our September meeting or not? 24 MR. HINNEFELD: Possibly. You know, there's 25 not -- there are not many work days unti-- you

1 know, between now and that meeting. And --2 MS. MUNN: No, there aren't. It just was an 3 item to which we devoted a significant amount 4 of time, and apparently has been of concern 5 pretty much across the board. MR. HINNEFELD: Well, I think if we -- we might 6 7 be able to at least list various ways in which 8 the word "coworker" is used and come up with 9 some suggested alternatives. 10 That would be really helpful. MS. MUNN: 11 MR. HINNEFELD: You know, maybe we can do that. MS. MUNN: If there's a possibility that we 12 13 could do that --14 MR. HINNEFELD: Now I don't know -- see --15 MS. MUNN: -- that would be a good start. 16 MR. HINNEFELD: I don't know what the impact of 17 that change is. MS. MUNN: 18 Well --19 MR. HINNEFELD: When you make a change like 20 that, you may end up with a lot of work --21 MS. MUNN: I know that's --22 MR. HINNEFELD: -- to get that implemented 23 because it's used in a variety of places. 24 MS. MUNN: That's true. With any luck at all, 25 we'll be enough -- we'll have enough additional

| 1 | information that we can identify where it's |
|----|---|
| 2 | used in each case and select the appropriate |
| 3 | alternative, not necessarily change in all |
| 4 | places but in some. |
| 5 | MR. HINNEFELD: We I think perhaps for this |
| 6 | we might have an opinion about CATI and is that |
| 7 | the correct term to use in that portion of the |
| 8 | CATI. |
| 9 | MS. MUNN: That seemed to be the primary |
| 10 | concern. |
| 11 | MR. HINNEFELD: Yeah, maybe that would be the |
| 12 | right which seems to be sort of a the common |
| 13 | vernacular. You know, the co my coworker is |
| 14 | the person who I worked with. |
| 15 | MS. MUNN: Yes. |
| 16 | MR. GRIFFON: Right. |
| 17 | MR. HINNEFELD: As opposed to a coworker |
| 18 | dataset, which is really a coworking dataset. |
| 19 | You know, that stuff is sort of the population |
| 20 | |
| 21 | MR. GRIFFON: Well, the way you've been using |
| 22 | it |
| 23 | MR. HINNEFELD: the way it's being done is |
| 24 | the population dataset. |
| 25 | MR. GRIFFON: in this program has been site- |
| | |

1 wide. 2 MS. MUNN: Yes, it has. 3 MR. HINNEFELD: It's been a population dataset, 4 so --5 MR. GRIFFON: And that's confusing maybe to --6 DR. NETON: Well, that's -- that's an artifact 7 of -- we didn't know what we were really going 8 to do when we started the program. 9 MS. MUNN: Yeah. 10 DR. ZIEMER: Well, just a comment. 11 MR. GRIFFON: Yeah. 12 DR. ZIEMER: It seems to me that if -- if we're 13 going to try to mandate going back to all 14 documents and putting in new words, that's not 15 going to be useful. 16 MR. GRIFFON: Right. 17 DR. ZIEMER: So the main thrust will be going 18 forward, I think, and how it's used with the 19 interview process. And if we can clarify the 20 terminology and make sure that in the interview 21 process, as we go forward, that it's used in 22 whatever new way we determine -- as far as old 23 documents are concerned, we would just have to 24 25 MR. GRIFFON: Oh, yeah, I -- I --

1 DR. ZIEMER: -- (unintelligible) those. 2 MR. GRIFFON: -- I wasn't --3 DR. ZIEMER: And maybe when they're revised, 4 suggest that the new terminology then be used. 5 But to go back and revise everything would not (unintelligible) --6 7 MR. GRIFFON: But I think more -- more of the 8 issue comes into play when people --9 DR. ZIEMER: Right. 10 MR. GRIFFON: -- are told you -- you did my 11 dose reconstruction with a coworker model --12 DR. NETON: Exactly. 13 MR. GRIFFON: -- and they say I talked to my 14 coworkers and you didn't do any --DR. ZIEMER: You didn't call them at all. 15 16 MR. GRIFFON: -- you didn't call them, right. 17 So that's the --18 DR. NETON: I think an explanation --19 MR. GRIFFON: Yeah, an explanation of --20 DR. NETON: -- this process --21 MR. GRIFFON: I don't think you have to go 22 through and edit --23 DR. NETON: Exactly. 24 MR. GRIFFON: -- or change the terms. I think 25 _ _

| 1 | DR. ZIEMER: Exactly. |
|----|---|
| 2 | MS. MUNN: Well, this is, after all, the CATI |
| 3 | procedure that we're talking about, and that's |
| 4 | where that interface with the claimant and with |
| 5 | the general public seems to be the roughest |
| 6 | spot. And we we had suggested last time the |
| 7 | possibility of "fellow worker" as opposed to |
| 8 | "coworker," which is a slightly different |
| 9 | thing. It's a person who was there |
| 10 | MR. HINNEFELD: I think if we would be a little |
| 11 | more explanatory in conducting the interview on |
| 12 | what we're asking about |
| 13 | MS. MUNN: Yeah. |
| 14 | MR. HINNEFELD: rather than worry about the |
| 15 | actual term |
| 16 | DR. ZIEMER: Right. |
| 17 | MR. HINNEFELD: because right now when we |
| 18 | ask for coworkers we get, you know, people who |
| 19 | were in the same car pool |
| 20 | DR. ZIEMER: Yeah. |
| 21 | MR. HINNEFELD: you know, who never saw each |
| 22 | other except in the car pool. |
| 23 | MS. MUNN: Right. |
| 24 | MR. HINNEFELD: So maybe a little bit more |
| 25 | explanatory about what we're asking for in the |
| | |

| 1 | interview might be what we're interested in |
|----|---|
| 2 | here, which really should be captured in the |
| 3 | form anyway, as as we're going in this |
| 4 | revision. |
| 5 | MS. MUNN: Yeah. We'll see if we if we have |
| 6 | something to report next time, we'll talk about |
| 7 | it next time. |
| 8 | MR. GRIFFON: Can I ask I think I asked this |
| 9 | at the Board meeting, but as to follow up on |
| 10 | Wanda's request for intelligence, so to speak, |
| 11 | I think I asked last time I and this is |
| 12 | more implementation than the procedure, but how |
| 13 | many is it easy for NIOSH to pull the |
| 14 | numbers how many coworkers have been |
| 15 | contacted out of the total CATIs completed and |
| 16 | how many coworkers have been called? I'd just |
| 17 | like to see that number. |
| 18 | MR. HINNEFELD: I'll try to find it. |
| 19 | MR. GRIFFON: Is that |
| 20 | MR. HINNEFELD: I don't know if it's easy or |
| 21 | not. |
| 22 | MR. GRIFFON: I don't know how easy that is to |
| 23 | |
| 24 | MR. HINNEFELD: I don't know if it's easy. |
| 25 | MR. GRIFFON: pull out of the database or |
| | |

what.

| 2 | DR. NETON: I can tell you the number's pretty |
|----|--|
| 3 | low very, very low. |
| 4 | MR. GRIFFON: Right. |
| 5 | DR. NETON: The reality is once once we |
| 6 | adopted that coworker approach where we use |
| 7 | population distributions, there really is a |
| 8 | claimant's advantage for us to use that the |
| 9 | 95th percentile or whatever |
| 10 | MS. MUNN: Right. |
| 11 | DR. NETON: as opposed to trying to track |
| 12 | down someone who stood next to him at work. |
| 13 | MR. GRIFFON: I'm not I'm not |
| 14 | DR. NETON: Where where we just |
| 15 | MR. GRIFFON: it either way, I just want to |
| 16 | know the numbers in |
| 17 | DR. NETON: I think where we've used it is |
| 18 | situations where a person would would allege |
| 19 | a certain work environment that just didn't |
| 20 | make sense, like huge exposure rates, 100 R |
| 21 | fields or something like that, and then we |
| 22 | would or existence of certain sources that |
| 23 | didn't make sense, what we knew about the site |
| 24 | inventory, and we would go and contact people |
| 25 | and verify does this make sense to you. |
| | |

| 1 | DR. MAKHIJANI: Jim, this is Arjun. One one |
|----|---|
| 2 | of the original concerns I remember when |
| 3 | when we when I interviewed Denise and |
| 4 | prepared the report was was not just a |
| 5 | question of coworker interviews and somebody |
| 6 | standing next to a coworker. It was a question |
| 7 | of is there a level playing field between |
| 8 | employee claimants and survivor claimants. And |
| 9 | you know, you can't level that playing field |
| 10 | completely, of course, you know, but the spirit |
| 11 | of the recommendation was that interviewing |
| 12 | somebody that stood next to them might reveal |
| 13 | those kinds of conditions, whereas an employee |
| 14 | could tell you themselves and then you can make |
| 15 | a judgment. In the case of a survivor |
| 16 | claimant, if you don't interview the coworker |
| 17 | you'll never know. |
| 18 | DR. NETON: Okay. I hear what you're saying. |
| 19 | That's a little different than I was thinking |
| 20 | about it, but yeah, that makes some sense. |
| 21 | DR. MAKHIJANI: But that that was the main |
| 22 | thrust of the recommendation. It it isn't |
| 23 | that, you know, NIOSH would always interview a |
| 24 | coworker that's been named you know, in the |
| 25 | case of an employee that, you know, has |
| | |

1 reasonable memory and good health or, you know, 2 or at least reasonable memory, which seems to 3 be the case in the vast majority of --That -- that doesn't come across in 4 DR. NETON: 5 the way that finding is written, to me. No, I think --6 MS. MUNN: 7 MR. HINNEFELD: I think it's written elsewhere. 8 DR. NETON: Okay, maybe that's another finding, 9 but the finding that I'm seeing here really 10 talks about people being concerned when they 11 get their dose reconstruction and we didn't 12 contact coworkers that they named during their 13 interview and they -- they said why didn't you; 14 you asked me for names, I gave them to you and 15 you blew them off. That's --16 DR. MAKHIJANI: Maybe I'm looking at the wrong 17 Whi-- which -- which one are we in? one. 18 MR. GRIFFON: Number seven. 19 MS. MUNN: We're looking at PROC-90, item 20 seven. 21 DR. MAKHIJANI: Item seven. 22 DR. ZIEMER: Finding seven -- issue seven. 23 MR. GRIFFON: Sometimes these -- these 24 summaries in the matrix or database doesn't 25 reflect the entire -- as you know, so I don't

1 know if it was in a subtext or... 2 DR. MAKHIJANI: I'm in the tracking system. 3 I'm not finding an issue number in that. MS. MUNN: You don't find PROC-90? 4 5 DR. MAKHIJANI: I have PROC-90 -- oh, yes, here Okay, I see it. All right. All right. 6 it is. 7 Okay. 8 MS. MUNN: So we'll do the best we can with it. 9 That's as far as we're going to go with it 10 right now. 11 The next item --12 MR. HINNEFELD: I think -- I think, for 13 everybody's -- I think Arjun's comment relates 14 to number 17. 15 MS. MUNN: Uh-huh. 16 DR. MAKHIJANI: Number 17 --17 MS. MUNN: Which is addressed in number eight. 18 DR. NETON: It's a different finding. 19 DR. MAKHIJANI: Yes, I -- I agree. Sorry, my 20 mistake. 21 MS. MUNN: Which is addressed in number eight, 22 so -- which is procedure's lacking sufficient 23 information to assist the recipient, and we can 24 look at these item by item to see the ones that 25 are outstanding, but unless someone here feels

| 1 | differently there is no purpose in discussing |
|----|---|
| 2 | any of the others since we haven't had an |
| 3 | opportunity to move forward with them in any |
| 4 | great detail inside the agency. |
| 5 | Still outstanding is number eight, procedure is |
| 6 | lacking sufficient information to assist the |
| 7 | recipient, and item 14, interview contains |
| 8 | numerous gaps. |
| 9 | DR. ZIEMER: These are all going to be |
| 10 | addressed by the revisions, I guess, is that |
| 11 | the |
| 12 | MR. HINNEFELD: Yeah, because there's still |
| 13 | there's |
| 14 | DR. ZIEMER: revision I guess |
| 15 | MR. HINNEFELD: there's revision to the |
| 16 | procedure and revision to the CATI script |
| 17 | are both underway. |
| 18 | MR. GRIFFON: And the revision of the CATI |
| 19 | script, I was going to ask, is that is that |
| 20 | something the Advisory Board is going to have a |
| 21 | chance to comment wi I think we discussed |
| 22 | this a little bit |
| 23 | MS. MUNN: We had agreed last time that |
| 24 | MR. GRIFFON: prior to OMB prior to your |
| 25 | to your submittal to OMB or |
| | |

1 MS. MUNN: We agreed last time that this body 2 would do that. 3 MR. HINNEFELD: I don't know if I can say -- I 4 don't know if I can speak to that or not. 5 MS. MUNN: No, no, we agreed last time that 6 this group --7 MR. GRIFFON: Procedures, right. 8 -- would look at it. We would not MS. MUNN: 9 take it to the Board, but that --10 MR. GRIFFON: Well, this goes to the Board, but 11 anyway -- yeah, yeah, okay. So do -- I mean 12 what's the timing on that, Stu, do you know? 13 Is it similar to the --14 MR. HINNEFELD: By the -- by the end of -- by 15 the end of the year we would expect to submit 16 our -- it's a renewal package that we have to 17 submit OMB, and it's a -- so it's a lot -- I 18 mean we can revise it other times as well, but 19 this is a lot, so we'll -- we'll have the 20 submittal by the end of the year. So there's -21 - there's -- I think there (unintelligible) 22 content in there for (unintelligible). 23 MS. MUNN: Item 14 is in abeyance, the numerous 24 gaps. 25 DR. ZIEMER: Same issues.

| 1 | MS. MUNN: Same thing. Same thing. Number |
|----|---|
| 2 | 16's been transferred to 92; 17 is addressed in |
| 3 | 08. Item 21 is still in abeyance, definition |
| 4 | and scope of key terms like completeness and |
| 5 | technical. |
| 6 | (Unintelligible) definition and scope of key |
| 7 | terms, completeness and technical content. |
| 8 | DR. MAKHIJANI: Excuse me, I'm I'm sorry, I |
| 9 | didn't understand what what happened with |
| 10 | 17? |
| 11 | MS. MUNN: Seventeen is addressed in PROC-90, |
| 12 | item eight, the one we were just |
| 13 | DR. MAKHIJANI: Oh, yeah. |
| 14 | MS. MUNN: discussing earlier. |
| 15 | DR. MAKHIJANI: All right. |
| 16 | MS. MUNN: And the only other three left |
| 17 | this is 21, two left item 23 is |
| 18 | DR. ZIEMER: Is 21 part of the same thing? |
| 19 | MS. MUNN: No, it isn't. No, that's this |
| 20 | MR. HINNEFELD: 21 had to do with certain types |
| 21 | of activities that are done during the review |
| 22 | of the CATI. It's reviewed it's sent you |
| 23 | know, for completeness and technical content. |
| 24 | DR. ZIEMER: But what does that mean? |
| 25 | MR. HINNEFELD: And what does that mean. |
| | |

DR. ZIEMER: Yeah.

| MR. HINNEFELD: Because the the reviewer |
|---|
| certainly had a different expectation based on |
| the the words there, they had a different |
| expectation of what that activity would be |
| compared to what it actually was. And so |
| that's what this is about. |
| MS. MUNN: So item 21 then is there but |
| separate. I keep one one very good thing |
| about having a remote connection from my laptop |
| to the O drive is that it's a very secure |
| system which logs me off about every two |
| minutes, so |
| DR. ZIEMER: Whether you want to or not. |
| MS. MUNN: Whether I want to or not, right, so |
| |
| DR. ZIEMER: They keep working on it very |
| (unintelligible) |
| MS. MUNN: Yeah, either you're moving or you're |
| not going to stay on line. |
| Item 23? |
| DR. ZIEMER: Well, let me ask, if I might, |
| first |
| MS. MUNN: Yes. |
| DR. ZIEMER: on 21 then, when the CATI is |
| |
| |

1 all revised and so on -- or the interview 2 process, you're going to define what you mean 3 by completeness and --4 MR. HINNEFELD: Well --DR. ZIEMER: -- technical content --5 MR. HINNEFELD: -- right --6 7 **DR. ZIEMER:** -- (unintelligible)? 8 MR. HINNEFELD: -- rather than just leave that 9 completeness and technical content, it'll 10 better describe what --11 DR. ZIEMER: What that means. 12 MR. HINNEFELD: -- that review -- what that 13 review is. 14 MS. MUNN: So 23 is no explicit connection to 15 review of information in closing interview. 16 That will be covered by the same -- by the same 17 effort. Correct? 18 MR. HINNEFELD: I'm trying to remember this 19 This one seems to me like this might be one. 20 a... 21 (Pause) 22 DR. MAKHIJANI: Well, I -- I believe this item 23 is actually connected with our review of the 24 closeout interview process. 25 MS. MUNN: Yes, it -- it -- it specifically

1 states closing interview, Arjun. 2 DR. MAKHIJANI: Yeah, and then we had -- you 3 know, we had -- the reason I say that, Wanda, 4 is we had made a number of comments about this 5 in -- in the other review of that procedure. MS. MUNN: 6 Yes. 7 DR. MAKHIJANI: I don't know if NIOSH is doing 8 something under that or -- I don't remember. 9 DR. ZIEMER: Either the CATI or PROC-90 it says 10 under the NIOSH. 11 MR. HINNEFELD: I believe this is -- might be a 12 transfer to PROC-92. 13 UNIDENTIFIED: It's in 92, it seems like. 14 MR. HINNEFELD: Because it's -- the closeout 15 interview procedure is PROC-92, and I believe 16 the finding was that people would tell us 17 things in the CATI and it was never related 18 back to them the information from the CATI, and 19 so -- but that occurs at the closeout interview 20 - -21 MR. GRIFFON: Closeout. 22 MR. HINNEFELD: -- not at the CATI, and so this 23 might be a transfer to --24 MR. GRIFFON: 92. 25 MR. HINNEFELD: -- 92, where it would be in

abeyance till PROC-92 is revised.

1 2 DR. MAKHIJANI: Well, presumably during -- in 3 the revision of the closeout interview process 4 you would -- you would have some portion of it 5 where you explain to the claimant what was done with the CATI. 6 7 MR. HINNEFELD: That would be the time to do 8 I mean when you're -- when you're doing it. 9 the CATI interview you have no opportunity to 10 tell the claimant --11 DR. MAKHIJANI: Yeah. 12 MR. HINNEFELD: -- what the ultimate use of the 13 information was --14 DR. ZIEMER: You won't know it at that point. MR. HINNEFELD: -- and the next structured 15 16 conversation or, you know, sort of, you know, 17 conversation essentially with the claimant is 18 at the closeout interview. So that would be 19 essentially the opportunity to describe to them 20 how the information provided in the CATI was 21 used in the dose reconstruction. DR. MAKHIJANI: Yeah, I -- I think that would 22 23 be good, you know, just in my view -- opinion, 24 of course, having participated in the -- in the 25 review of both these procedures, that -- I

| 1 | agree with Stu that, you know, if you if you |
|----|--|
| 2 | amend Procedure 92 to include that |
| 3 | conversation, then then this this thing |
| 4 | could could be fixed and it could be |
| 5 | transferred to the amendment of 92. I so I |
| 6 | I agree with Stu. I don't know what the |
| 7 | working group wants would want to do. |
| 8 | MS. MUNN: Agreed? Any problem with that? |
| 9 | MR. GRIFFON: Let's let's transfer it. |
| 10 | MS. MUNN: Transfer it to PROC-92. All right, |
| 11 | one last one in abeyance, item 25. |
| 12 | Qualifications are not specified in the |
| 13 | procedure. |
| 14 | MR. HINNEFELD: The the issue here is were |
| 15 | these supposed to be health physics reviews or |
| 16 | not. |
| 17 | MS. MUNN: Right. |
| 18 | MR. HINNEFELD: And the qualifications |
| 19 | (unintelligible). |
| 20 | MS. MUNN: Right. We have have we come to |
| 21 | any agreement with respect to that? I know |
| 22 | we've had discussions about it. |
| 23 | MR. MARSCHKE: (Off microphone) Issue was we |
| 24 | (unintelligible) clarify the procedure |
| 25 | (unintelligible) who is the interviewer. |
| | |

1 MR. GRIFFON: You've got to speak up. 2 MR. MARSCHKE: It was -- basically it was we 3 agreed last time we would change the wording in PROC-90 to clarify who was the interviewer, and 4 5 that the interviewer was not necessarily a 6 health physicist. 7 DR. MAKHIJANI: Well, generally an interviewer 8 is not a health physicist. 9 MS. MUNN: No, that's -- that's understood. 10 But it appears that this falls under the same 11 blanket as all of the other current "in 12 abeyance" activities, namely it'll be addressed in the rewrite of the procedure. Correct? 13 14 DR. ZIEMER: In PROC-90 in this case. Right? MS. MUNN: 15 Yeah. 16 MR. HINNEFELD: Yeah, it -- it should be 17 addressed in the re-- it's not (unintelligible) 18 to me this is strictly a qualification 'cause 19 there's also --20 MR. GRIFFON: Yeah. 21 MR. HINNEFELD: -- some suggestions here for 22 preparation for the interview. 23 MR. GRIFFON: Right. 24 MS. MUNN: Correct. 25 MR. HINNEFELD: It's not strictly the

1 qualification --2 MS. MUNN: No. 3 MR. HINNEFELD: -- of the interviewer and the 4 qualification of the reviewer --5 MS. MUNN: No. 6 MR. HINNEFELD: -- but it is what is the 7 appropriate preparation for the interview. 8 MS. MUNN: Yes. 9 MR. HINNEFELD: So there a -- a need for that. 10 MS. MUNN: Very good. We know where we are now 11 with PROC-90, I think. Thank you for -- thank 12 you, Steve, for getting that -- the updates 13 done and for helping us through the tracking 14 here. 15 MR. MARSCHKE: Wanda, I have a question on 16 database protocol, I guess it would be. MS. MUNN: 17 Yes? 18 MR. MARSCHKE: For example, the -- the -- we 19 just -- we just agreed to transfer PROC-90 20 issue 23 to PROC-92. 21 MS. MUNN: Correct. 22 MR. MARSCHKE: Now I can go into the -- and 23 change the -- and do that transfer on -- on 24 PROC-90 23. Now do you also want me at the 25 same time to go into -- to add a new issue to

| PROC-92, which is basically, you know, the |
|---|
| issue received? |
| MS. MUNN: Yes, that would be the logic that I |
| would expect almost everyone to follow. If you |
| have a transferred in item, then |
| DR. ZIEMER: If it's transferred out, it's got |
| to go in somewhere. |
| MS. MUNN: Yeah, right. Yeah. |
| MR. MARSCHKE: Well, we haven't been doing |
| that, so we'll have to start we'll have |
| I'll have to go back and make sure that that is |
| done, where appropriate. |
| MS. MUNN: I think that's |
| MR. MARSCHKE: That may increase the number of |
| issues. |
| DR. ZIEMER: How do you identify it? It'll |
| have the new issue number that's not in the |
| original matrix. |
| MR. MARSCHKE: It'll have a new sequential |
| sequential number like PROC-90 this'll be |
| PROC-92, whatever the next number is in the |
| sequence, and it will then we'll have in |
| parentheses formerly or transferred from |
| PROC-90, issue 23. |
| MS. ADAMS: And a transfer date. |
| |
| |

1 MS. MUNN: Yes. 2 MR. MARSCHKE: And the -- yes, the transfer 3 date will -- should -- should show up 4 someplace. 5 MR. GRIFFON: Imported status then? 6 MR. MARSCHKE: Impor-- yeah, there is a field 7 in there someplace. Yeah, imported -- yeah. 8 MS. MUNN: Yeah, we agreed that we would have a 9 export/import --10 MR. MARSCHKE: Yeah, right. 11 MS. MUNN: -- designation. 12 MR. MARSCHKE: Okay. 13 TBD 6000, APP BB - NIOSH RESPONSE TO ELECTRON 13 ENERGY VALUE DIFFERENCES OTIB-0008, 010, 0023 14 MS. MUNN: All right, good. Thank you. The 15 next item that I had on database update was 16 TBD-6000, Appendix BB. We may be able to save 17 ourselves the grief of looking at that by just 18 inquiring where we are in terms of the new 19 workgroup. 20 Well, the new workgroup has been DR. ZIEMER: 21 established and we're trying to find a meeting 22 date which we can -- where we can legally meet. 23 We're waiting to hear whether we can meet in 24 October or not. We've set out eight possible 25 meeting dates for the group and gotten the

| 1 | matrix available when. But now I've learned |
|----|---|
| 2 | within the last couple of days, based on the |
| 3 | efforts by the I think it's the Fernald |
| 4 | workgroup (unintelligible) establish a date, |
| 5 | that there's some restrictions on when we can |
| 6 | meet in October based on some budgetary issues, |
| 7 | I guess on the continuing budget. |
| 8 | MS. MUNN: We hadn't heard that before. |
| 9 | DR. WADE: You'll have a clarification. |
| 10 | DR. ZIEMER: We we were awaiting a |
| 11 | clarification. In any event, all I'm saying is |
| 12 | we're trying to establish a work workgroup |
| 13 | and the priority of the workgroup initially |
| 14 | will be to address Appendix BB and |
| 15 | MS. MUNN: There's not any pressing need for us |
| 16 | in this workgroup to take any action on the |
| 17 | outstanding items |
| 18 | DR. ZIEMER: No, I think I think they belong |
| 19 | to the new workgroup now. |
| 20 | MR. HINNEFELD: I mean to to and also, |
| 21 | just so everybody's clear on this, the NIOSH |
| 22 | responses to those findings were largely a |
| 23 | promissory note |
| 24 | MS. MUNN: Uh-huh. |
| 25 | MR. HINNEFELD: that we're going to provide |
| | |

1 the technical response with, you know, the 2 analysis of the -- by -- of the film badge 3 (unintelligible). 4 MS. MUNN: Uh-huh. 5 MR. HINNEFELD: So you know, there's -- until 6 that's really available, I don't know there's a 7 lot of point for the -- for that workgroup 8 (unintelligible). 9 MS. ADAMS: The official response here now is 10 for October you need to schedule as late in 11 October as possible, but preferably the first week of November would be better. 12 13 DR. ZIEMER: Oh, okay. 14 MS. ADAMS: Travel cannot be approved until '09 15 numbers are released and you actually have 16 them, and there's no way of telling when that's 17 going to be. 18 Hmm, well, that's different than MR. GRIFFON: 19 what Christine sent us before. 20 MS. MUNN: Yeah, it is. 21 MR. GRIFFON: She said October 1st. 22 MS. MUNN: Yeah. 23 MS. ADAMS: Well, that's the start of the new 24 fiscal year. 25 MR. GRIFFON: Right.

1 MS. MUNN: Yeah. 2 MS. ADAMS: But until they figure out what's 3 going to happen -- I'm guessing with the 4 continuing resolution and where the numbers are 5 going to lie and (unintelligible). 6 MR. HINNEFELD: There is an additional 7 complication this year on the continuing 8 resolution because Fiscal '09 -- the money for 9 this program was supposed to be coming to HHS, 10 whereas previously it was done through 11 Department of Labor. But under a continuing 12 resolution, I don't know anybody knows what happens if we start '09 on a continuing 13 14 resolution -- where does the money come from 15 because a continuing resolution means we're 16 going to continue last year's lev-- level. 17 MS. MUNN: Uh-huh. 18 MR. GRIFFON: Right. 19 MR. HINNEFELD: And so I think the people are 20 involved in this don't even know how last month 21 (unintelligible). I mean RFMO and Labor 22 doesn't. 23 DR. ZIEMER: So we have that issue, and then we 24 have -- you're awaiting what, Stu, something 25 from Landauer?

MR. HINNEFELD: No.

1

2 DR. ZIEMER: What is --3 MR. HINNEFELD: Our staff has -- is preparing 4 for an analysis of film badge data, so it's --5 you're waiting for us to provide that from them 6 that supports our findings. 7 DR. WADE: Now remember, the message that was 8 read said as late in the month as possible. Ιf 9 you have a critical need to meet, then you 10 should surface that need. It could be --11 DR. ZIEMER: If we don't -- if we don't have 12 that analysis, then --13 **DR. WADE:** -- back to Mark's (unintelligible). 14 DR. ZIEMER: -- that may become a moot point 15 then. 16 DR. WADE: (Unintelligible) to Mark's --17 MR. GRIFFON: Thinking about some of the newer 18 -- you know, Fernald, Mound, some of the SEC 19 ones. 20 DR. WADE: Yeah, I would be clear and say it's 21 important that we meet, it's critical that we 22 meet, it's convenient that we meet -- whatever 23 it is -- and give that data, then see what the 24 system sends back to you. 25 THE COURT REPORTER: Excuse me, Wanda?

1 MS. MUNN: Yes. 2 THE COURT REPORTER: When we're not using that 3 screen can we turn off the projector? It gives 4 a huge white noise into my feed. Are y'all 5 about to use it for the next --MS. MUNN: Yeah. 6 7 THE COURT REPORTER: Are you? 8 MS. MUNN: This will create a problem, simply 9 because --10 THE COURT REPORTER: Yeah, it is a problem. 11 MS. MUNN: -- we anticipate using it a lot --12 THE COURT REPORTER: I know, I don't know what 13 to do. 14 MS. MUNN: -- and it was my thought that we 15 would continue to use it in future meetings --16 THE COURT REPORTER: I know. 17 MS. MUNN: -- so that this isn't a one-time 18 thing. 19 Is it -- is it feedback or is it MR. GRIFFON: 20 - -21 THE COURT REPORTER: It's the fan in it, yeah. 22 MR. GRIFFON: Can we move the mike away from 23 the -- I don't know. 24 DR. ZIEMER: Which mike is picking up that? 25 THE COURT REPORTER: Well, probably that one,

1 yeah. If you could move that --2 UNIDENTIFIED: This one? 3 THE COURT REPORTER: -- toward me maybe, Stu, 4 get it away from that --5 **DR. ZIEMER:** What about the little one there? 6 MS. MUNN: I think the floor one. That's just the speaker phone. 7 DR. NETON: 8 THE COURT REPORTER: Right, that's that 9 speaker. That may help. 10 MS. MUNN: See what happens. 11 THE COURT REPORTER: It's still bad. I mean --12 you know, like this mike could probably be 13 picking it up. It's something I'll have to 14 figure out before the next meeting, but it 15 truly -- it's like an ocean wave and hearing it 16 miked. 17 MR. GRIFFON: Yeah, that is loud. 18 MS. MUNN: It's not good. 19 THE COURT REPORTER: Yeah, I know. And I know 20 it's that machine because any time it's turned 21 -- let's see what that does, Nancy. 22 **DR. ZIEMER:** Put a sound barrier. 23 MS. MUNN: Yeah --24 THE COURT REPORTER: It didn't help. 25 MS. MUNN: It didn't help?

1 THE COURT REPORTER: Thanks. Well, I'll figure 2 it out. I mean we'll get through and I'll 3 figure something out. 4 DR. MAURO: Are there on/off switch on each of 5 the mikes that we could see if we start turning one or two off, see which ones help? 6 7 DR. NETON: They're on on/off switches, but I'm 8 just wondering if it's just that fan or there's 9 a lot of laptop fans going around --10 DR. MAURO: That's true, too. 11 MR. GRIFFON: But you didn't have this 12 yesterday. 13 THE COURT REPORTER: Right. 14 It was fine yesterday. MR. GRIFFON: 15 DR. NETON: It's on the top of the mikes. 16 THE COURT REPORTER: I mean there's always 17 ambient noise with Blackberries and laptops on, 18 and those -- but I've got to have the mikes on. 19 DR. ZIEMER: Does that -- does that make a 20 difference? 21 THE COURT REPORTER: No. 22 DR. MAURO: Maybe it's something else. 23 DR. ZIEMER: So it's not the mike then. 24 MS. MUNN: It's -- it's just too much --25 DR. ZIEMER: I can't even hear that fan. Ι

1 wonder if it's --2 THE COURT REPORTER: Oh, I know y'all don't 3 hear it. But it's coming into my feed. MR. GIBSON: Could we turn it off for a minute 4 5 and see if it guits? THE COURT REPORTER: It -- it is that machine, 6 7 because we didn't use it yesterday and 8 everything was fine. 9 MR. GRIFFON: Yeah, that's --10 THE COURT REPORTER: And we've had projectors 11 in other rooms and whenever they're on it's a 12 big ambient problem. 13 DR. NETON: The fan's going to stay on. 14 The fan'll stay on if we turn MR. HINNEFELD: 15 it off 'cause the fan stays on to cool the bulb 16 after you turn it off. 17 THE COURT REPORTER: Let's -- let's not delay 18 any further. It'll -- I'll figure something 19 out before the next meeting. I'm sorry. 20 Really it is --MR. GRIFFON: 21 THE COURT REPORTER: I'm sorry to delay 22 everything. MR. GRIFFON: -- it's loud in his ear. 23 24 MS. MUNN: Yeah, that's pretty bad, but -- and 25 it's strange, because the fan itself -- in

| 1 | ambient noise does not produce that much of |
|----|--|
| 2 | a problem. We'll just have to figure out what |
| 3 | to do electronically to help that out. |
| 4 | The other items that I had listed that I sent |
| 5 | to you were also items that we discussed at |
| 6 | great length last at our last meeting, |
| 7 | didn't want to leave them high and dry OTIB- |
| 8 | 8, 10 and 23, and the items that we have |
| 9 | MR. MARSCHKE: What we did on 8, 10 and 23, I |
| 10 | think we I think we briefly talked about |
| 11 | these at the last meeting, but you know, we |
| 12 | also talked about these at the June the |
| 13 | meeting in June in St. Louis. |
| 14 | MS. MUNN: Yes. |
| 15 | MR. MARSCHKE: And what I'm handing out now is |
| 16 | is e-mails which were went back and forth |
| 17 | between Stu, myself and Kathy Behling, which |
| 18 | if you look at the second page, there's an e- |
| 19 | mail we received from Stu on June 16th, |
| 20 | basically requesting us to to or |
| 21 | notifying us that these OTIBs had been revised |
| 22 | and requesting us to see whether or not we |
| 23 | we think the revisions address the issues. And |
| 24 | if you look at the first page, then my I |
| 25 | I forwarded Stu's e-mail to to Hans Behling |
| | |

1 and asked him to perform the review because he 2 did the original review of those three OTIBs. 3 And then the top -- the e-mail at the top 4 coming back from Kathy Behling indicates, if 5 you just read the first paragraph, she 6 indicates that they both looked at the three 7 OTIBs in question and concluded that they --8 all the findings were addressed and could be 9 closed. And I believe at the June meeting in 10 St. Louis we received instructions from the 11 workgroup to -- to close those issues. And so 12 now they are indicated in the -- in the -- in 13 the database as being closed. And I think -- I 14 believe there were 16 of those issues. 15 MS. MUNN: Everything I see on 8 and 10 and 9 16 are closed, and --17 MR. GRIFFON: This -- this -- this makes me --18 I don't know if it makes anybody else uneasy, 19 but this makes me a little uneasy that we --20 you know, as we go forward, we should think 21 about this because, you know, we've said many a 22 times that SC&A's our contractor and, you know, 23 this note here says, you know, Hans and Kathy 24 think everything looks good and they can be 25 closed. The workgroup never even looked at

1 them and we're just closing them, you know. 2 MS. MUNN: Well, we did look at them. 3 MR. GRIFFON: Well, we looked at the initial 4 ones and we said let's transfer it 'cause it's 5 being revised, and we never looked at the revised procedure. Or I haven't. So I -- you 6 7 know, and -- and then it's going away, and I'm 8 -- I'm not even saying that there's any problem 9 with the revisions. They're probably fine. 10 But I just think we -- we need to --11 DR. ZIEMER: Yeah, I think --MR. GRIFFON: -- to watch this --12 13 DR. ZIEMER: -- what you're saying --MR. GRIFFON: -- (unintelligible) this work. 14 15 DR. ZIEMER: -- in principle is a good point, 16 that --17 MR. GRIFFON: Yeah. 18 DR. ZIEMER: -- it's not -- it's not sufficient 19 -- it -- it's good that NIOSH and the 20 contractor agree --21 MR. GRIFFON: Right. 22 DR. ZIEMER: -- but that does not inherently --23 MR. GRIFFON: We should at least have a --24 DR. ZIEMER: -- doesn't follow that we 25 necessarily agree with both of them --

1 MR. GRIFFON: Or should at least have a chance 2 to question it. I mean and make sure we're --3 we're --MR. MARSCHKE: We did not close these issues 4 5 until we received approval from the working 6 group at the June meeting. These -- these were 7 not closed until after the -- after they were -8 9 MR. GRIFFON: But again, the -- the way it was 10 brought back in June I believe -- and maybe I'm 11 wrong -- is -- is the sa-- sort of the same way, that you've reviewed it -- you know, we 12 13 didn't go through the -- we didn't go back to 14 the findings and say, you know, this was 15 rewritten the other way and --16 DR. ZIEMER: (Unintelligible) you saw --17 MR. GRIFFON: -- addresses this finding --18 yeah, yeah. 19 DR. ZIEMER: Did we see what you saw when --20 did we see what the contractor saw when they 21 came to agreement. Is that -- that's what that 22 Mark --23 MR. GRIFFON: Yeah, yeah. 24 MS. MUNN: We did. We discussed them. 25 DR. ZIEMER: Did we?

1 MS. MUNN: Yes --2 DR. ZIEMER: Okay, that was a --3 MS. MUNN: -- we discussed them. 4 DR. ZIEMER: -- question --5 MR. GRIFFON: I must have missed that meeting. 6 I remember a database discussion, but I don't 7 remember that, so... 8 MS. MUNN: We discussed each of them. Т 9 believe we can -- I believe you can see that in 10 the transcript. 11 DR. ZIEMER: Well, that should show up here. 12 There's -- there's a resolution MR. HINNEFELD: 13 on these findings --14 MS. MUNN: Let's --15 MR. HINNEFELD: -- that what we agreed to do. 16 It may -- maybe it's not specific enough, but I 17 don't... 18 MS. MUNN: But let's --19 MR. GRIFFON: It could -- I'm just saying --20 I'm not even talking about necessarily 8 and 21 10, I'm just saying let's keep our eye on this 22 'cause a lot of things when we -- when we're 23 transferring them and we're saying, you know, this -- this is being considered or -- or 24 25 handled or addressed in the revision of this

1 TIB, if -- if we nev-- if the workgroup never 2 looks at the TIB again --3 DR. NETON: Well, I guess I have --4 MR. GRIFFON: -- you know, we're counting on --5 DR. NETON: -- a question on what "in abeyance" really means. If "in abeyance" means that a 6 7 resolution has been reached with the Boar--8 with the working group and SC&A on how to 9 address that issue, and it only means that SC&A 10 is going back to see that they actually 11 captured that in the write-up, that's a little 12 different than saying we're just going to 13 address it, and then SC&A looks at it and the 14 Board has never really --15 MR. GRIFFON: Yeah. 16 DR. NETON: -- considered the resolution of the 17 finding. 18 MR. GRIFFON: I mean I just want to ma-- and if 19 Wanda's correct, that's fine. I just want to -20 21 DR. NETON: But if you want to go back and 22 review every document again, then that would be a lot of extra work. 23 24 MR. GRIFFON: No, I'm not even saying that. 25 DR. NETON: Well, that's what I'm saying. But

1 if you agreed to the resolution, the comment 2 resolution, here's the technical approach that 3 needs to be added to the TIB --4 MR. GRIFFON: But you never tell us the 5 technical approach. That's what I'm saying. 6 DR. NETON: That's what I'm saying, what does 7 "in abeyance" mean? 8 MR. GRIFFON: Yeah. 9 DR. NETON: If "in abeyance" --10 MR. GRIFFON: We never get the technical 11 approach. We say "a revision's underway." 12 Well, I'm not sure --DR. NETON: 13 MR. GRIFFON: And -- and --14 DR. NETON: -- that's true in all cases. 15 MR. GRIFFON: Well, not all cases, but a lot of 16 them. A lot of them. 17 DR. NETON: Well, then that's --18 DR. MAURO: Well, one of the things that we did 19 agree is SC&A would not convert something that 20 is "in abeyance" to "closed" unless we are so 21 ordered to do so by the working group. 22 That we did agree to. We did --MS. MUNN: 23 MS. BEHLING: Excuse me, this is Kathy Behling. 24 I apologize, I joined a little bit late and you 25 may not have known I was on, but if you would

1 like I can provide something a little bit more 2 explanatory than just that e-mail and give you 3 reasons as to why we accepted all of those 4 findings and we found those findings to be 5 resolved. I could provide more detail on all 6 three of those procedures if you'd like. 7 MS. MUNN: It might be --8 MS. BEHLING: If that would resolve this issue. 9 MS. MUNN: Since there's some concern being 10 expressed at the table, Kathy, it might be a 11 good idea for us to go through these items one 12 at a time, each of these items that has now 13 been closed -- which my memory tells me we 14 agreed to, but nevertheless, it would be 15 helpful perhaps if you would go through those 16 one at a time for the benefit of anyone who 17 might not have been present or who, for some 18 reason, hasn't -- has a memory like mine and is 19 not clear on each of the items. 20 MS. BEHLING: Can I ask to do this? Can I put 21 -- put this in writing and I'll explain as to 22 why each one of the items we felt was closed, 23 and even if -- you know, maybe cite new information from the revised document? Because 24 25 I know in 8 and --

1 MR. GRIFFON: That's what -- yeah. 2 MS. BEHLING: -- 10, those -- those were 3 completely rewritten, and so some of the 4 initial findings that we had -- some of the 5 tables are not even there anymore and so the confusion no longer exists. And there may be a 6 7 new paragraph that precisely describes what the 8 dose reconstructor can do -- or should do, and 9 so if you -- 'cause it would be a little bit 10 easier for me if I could put that in writing 11 and send that to you for each --12 I think that's --MR. GRIFFON: MS. BEHLING: -- one of those items. 13 14 MR. GRIFFON: -- that's sort of what I'm 15 looking for as a general rule, instead of an e-16 mail saying we've looked at it and it looks 17 fine and close it. I think maybe just to go 18 back through -- you know, have a little -- and 19 I'm not saying --20 MS. BEHLING: I agree. 21 MR. GRIFFON: -- a big report --MS. BEHLING: 22 I agree. 23 MR. GRIFFON: -- just a little update we -- we 24 reviewed the revision, these old findings; you 25 know, this one's no longer applicable, the

1 table's been dropped; this one -- you know, 2 handled by doing this. You know, how did they 3 technically handle each finding and --4 MS. BEHLING: Agree, and then that can be put 5 into the database, also. 6 DR. MAURO: That's (unintelligible). So I agree with that. 7 MS. BEHLING: I'll 8 certainly put together something regarding 9 those 16 findings. 10 MR. GRIFFON: Is that okay, Wanda? I'm -- I'm 11 not sure --MS. MUNN: Well, in light -- in light of this 12 discussion -- now this brings a concern to my 13 14 mind with respect to how our database is going 15 to fulfill one of the original purposes that we 16 established, which is that of archive. If the 17 information that is contained on this sheet of 18 paper is not adequate for us, then we need to 19 address that now. So it appears to me that, in 20 light of the concern that's being expressed, it 21 would be wise for us to go through each of 22 these sheets and agree here in this group that 23 what is shown on that sheet is adequate for 24 archive purposes. If it is not, then what we 25 are saying is after we have closed a set of

1 issues like this we still need yet an 2 additional report to qualify these sheets and 3 pull them together --4 MR. GRIFFON: Well, I'm just saying --5 MS. MUNN: -- in some way. 6 MR. GRIFFON: -- that probably shouldn't have 7 been closed until we got that official report. I mean I -- and we probably did discuss -- I'm 8 9 not -- you know, your memory's probably better 10 than mine on this. We probably did say SC&A 11 looked at it and we're fine and we agreed as a 12 workgroup. I'm not -- you know, that could 13 have happened. I mean I don't remember it, but 14 it could have happened. But I'm saying that --15 that we probably should get a little -- I think 16 John said a white paper to say -- you know, not 17 a -- a full review again, but to say here's our 18 original findings; they wrote a new procedure 19 and, you know, like Kathy said, if this one's 20 no longer applicable 'cause the table isn't in 21 the update, this one is addressed in paragraph 22 three on page two, they've handled it this way 23 -- and then we as a workgroup can say yeah, 24 these all look reasonable, let's close them. 25 'Cause the workgroup's closing them. It's not

1 SC&A closing them, it's the workgroup closing 2 them. Right? 3 MS. MUNN: That's true, but the --4 MR. GRIFFON: Right. 5 MS. MUNN: -- but the workgroup closed them --6 MR. GRIFFON: Did close them, I quess, yeah. 7 MS. MUNN: -- did close them, yeah, and that's 8 why -- and wanting to see what's on the sheet. 9 Yes, Paul? 10 DR. ZIEMER: I'm not sure we need a white paper 11 or a report. It seems to me that the only 12 thing we need is the -- if you can scroll down 13 there --14 MR. GRIFFON: SC&A -- another SC&A follow-up --15 DR. ZIEMER: -- just an entry -- it may be a 16 couple of sentences, because there -- there's a 17 -- there's a fol-- which one is this? 18 MS. MUNN: This is OTIB-10. 19 MR. GRIFFON: Just another SC&A follow-up 20 maybe, with a new date. 21 DR. ZIEMER: I'm looking for -- okay, recommend 22 the proce-- what happened there? 23 MR. HINNEFELD: I (unintelligible) that down. 24 I'm sorry. I thought you were 25 (unintelligible). I'm sorry.

1 DR. MAKHIJANI: This -- this is Arjun. I'm a 2 little bit confused also --3 DR. ZIEMER: There's a workgroup directive now, 4 an SC&A follow-up. There was something that 5 you did that doesn't show up here. That's what 6 I'm saying. 7 DR. MAURO: I agree. 8 Abso-- yeah, that could go --MR. GRIFFON: 9 DR. MAURO: I agree. 10 DR. ZIEMER: And if we had that, that SC&A 11 reviewed this and they -- and here's what they 12 found, and we could look at that and we could 13 say well, let me see that or okay, if you found 14 that, let's close it. 15 MR. GRIFFON: Something --16 DR. ZIEMER: That's all you're --17 MR. GRIFFON: -- something more than SC&A 18 review--19 DR. MAURO: Says yes --20 MR. GRIFFON: -- something more than an e-mail 21 that says SC&A reviewed it and we like it, 22 yeah. 23 DR. ZIEMER: It needs to show up right there. 24 MR. MARSCHKE: Actually it shows up on the ne--25 if --

1 MR. HINNEFELD: Yeah, if you go to the bottom. 2 MR. MARSCHKE: -- goes to the next one, it 3 shows up there. 4 MR. HINNEFELD: (Unintelligible) answer is 5 (unintelligible). MR. MARSCHKE: On the 17th we made this, and 6 7 then it was -- on the 24th it was the -- the --8 MS. MUNN: SC&A --9 MR. GRIFFON: What does that say? I can't --10 MS. MUNN: SC&A reviewed --11 DR. ZIEMER: It adequately addresses the 12 concern --13 (Whereupon, multiple participants spoke 14 simultaneously.) 15 MR. GRIFFON: The same idea, it can go in that 16 field, yeah. 17 DR. ZIEMER: Right. 18 DR. MAURO: There's a rationale there. 19 DR. ZIEMER: Maybe just a couple sentences that 20 the --21 MR. GRIFFON: Yeah. 22 DR. ZIEMER: -- paragraph so-and-so --23 MR. GRIFFON: Exactly. DR. ZIEMER: -- states this and that adequately 24 25 _ _

1 MS. BEHLING: (Unintelligible) intended to do, 2 just one or two sentences that can be put into 3 the database because I thought, too, that's --4 was supposed to be included into the database. 5 I -- I haven't been following the procedures as closely as I used to, but I can certainly 6 7 provide that to you. 8 MR. GRIFFON: I think that's what we need, just 9 to know that we technically closed it out and 10 the workgroup's comfortable with it, as well as 11 SC&A, yeah. 12 DR. ZIEMER: I'm just concerned about asking 13 them to write white papers and --14 MR. GRIFFON: No -- yeah, I agree. If there's 15 a place for it, yeah, that's fine. 16 DR. ZIEMER: Just clarify what that means. 17 MS. BEHLING: It's going to be -- it'll take me 18 a few minutes. It's not going to be a huge 19 paper or anything, it'll just be an explanation 20 for each of those findings --21 DR. ZIEMER: And it can go into the field --22 MS. BEHLING: -- resolved. 23 DR. ZIEMER: -- and we're done. 24 DR. WADE: Arjun, do you have any -- you had a 25 point, Arjun?

| 1 | (No responses) |
|----|--|
| 2 | Arjun, are you with us? |
| 3 | DR. MAKHIJANI: Yeah, I'm here. Can you hear |
| 4 | me? |
| 5 | DR. WADE: Yes. |
| 6 | DR. MAKHIJANI: I I'm a little confused. |
| 7 | I'm looking at, for instance, that one closed |
| 8 | finding, Procedure 23, number 8. And and |
| 9 | then the there's an SC&A and NIOSH follow-up |
| 0 | and it says all issues were resolved in a |
| .1 | conference call. Normally we make minutes of |
| .2 | those conference calls and give them to the |
| .3 | working group, but it doesn't indicate here |
| .4 | that that was done, and the minutes usually |
| .5 | provide the provide the substance of of |
| 6 | the discussion to the working group and, you |
| 7 | know, it allows things to proceed smoothly and |
| 8 | the working group group has a pretty good |
| .9 | record of what happened so they can make a |
| 20 | decision. And I'm wondering, (a), was that |
| 21 | done, and (b), where where in this database |
| 22 | does something like that show up so there's |
| 23 | actually a rec substantive record of what |
| 24 | happened. |
| 25 | MS. MUNN: Well, that's essentially what we |

1 were just discussing, Arjun, is the fact that 2 the database that we have needs to reflect when 3 and where the substance of these closures was agreed to. And we're -- we're looking at 23 4 5 right now, which --DR. MAKHIJANI: Yeah, it does do that. 6 I mean 7 if you look at number 8, it says when and where 8 it was resolved, but it doesn't have any -- any 9 technical detail --10 **DR. ZIEMER:** Doesn't have the documentation. 11 DR. MAKHIJANI: -- on the resolution. 12 MS. BEHLING: In this particular case, it was just -- we did not take notes or -- I -- I mean 13 14 we did not provide the Board with any follow-up 15 on our technical call. It was Stu Hinnefeld, 16 and I'm not sure if there were any other NIOSH 17 or ORAU people, and Hans and myself on that 18 phone call. But no, we did not provide follow-19 up on that. 20 MS. MUNN: The discussion says conference calls 21 held on November 5th. NIOSH has agreed with 22 all of SC&A's findings and will introduce 23 appropriate changes in a -- what -- future --24 MR. HINNEFELD: Looks like future revision of 25 the (unintelligible).

MS. MUNN: -- revision of the --1 2 MR. HINNEFELD: Looks like procedure. 3 MS. MUNN: -- procedure. 4 MR. HINNEFELD: Or something (unintelligible). 5 MS. MUNN: Yeah. And we do not -- I quess the issue here is -- is the procedure available? 6 7 Has the workgroup seen the procedure? 8 **MR. HINNEFELD:** (Off microphone) 9 (Unintelligible) 10 MS. MUNN: And what's the -- and the new 11 procedure is or is not out. 12 MR. GRIFFON: And found to adequately address this concern. So again we don't have the meat. 13 14 We don't have the substance, that's the point. MR. HINNEFELD: Yeah, I think -- well, I think 15 16 Nancy offered up all three of these procedures 17 that she reviewed. 18 MS. MUNN: Uh-huh. 19 MR. HINNEFELD: Or Kathy -- Kathy. 20 MS. MUNN: Yeah. 21 MR. GRIFFON: Right, so that's fine. That's 22 fine, I think we know what to do. 23 MS. MUNN: You have your marching orders, 24 Nancy? 25 MR. GRIFFON: Kathy.

1 DR. ZIEMER: Kathy. 2 MS. MUNN: We've got to stop this. 3 MS. BEHLING: See what happens when you don't 4 show up at the meeting? They forget your name. 5 MS. MUNN: No. 6 MS. BEHLING: Yes, I have my marching orders. 7 MS. MUNN: All right. So you feel this won't 8 be a lengthy matter. 9 MS. BEHLING: No, not at all. I'll get it out 10 to you within a few days --11 MS. MUNN: Good. 12 MS. BEHLING: -- day or two. MS. MUNN: If Kathy's going to be able to do 13 14 that for us within a few days, then all three of these issues will be on our slate for our 15 16 follow-up meeting at Redondo Beach, and we will 17 at that time have information back and 18 hopefully -- Steve, will you have an 19 opportunity to populate the database by then? 20 MR. MARSCHKE: I'm kind of hoping that Kathy 21 might even do this directly in the database. 22 MS. MUNN: What do you think, Kathy? Is that a 23 possibility? 24 MS. BEHLING: Sure -- certainly, yes, I can do 25 that.

1 MS. MUNN: Good. All right. 2 DR. MAURO: So as a ground rule, this last step 3 -- something I quess we really haven't talked 4 about was when we get to the point where the 5 OTIB has been revised and, in the mind of S-of NIOSH, yes, we -- we have responded to all 6 7 of the issues, SC&A is asked please review to 8 see yes, in fact it is fully responsive to your 9 concerns. 10 MS. MUNN: Uh-huh. 11 DR. MAURO: We have that last step is when we 12 get back and say -- just happens yes -- this is 13 -- this is your rehearsal now. 14 MS. MUNN: Uh-huh. 15 DR. MAURO: When we say yes, it is fully 16 responsive and here's --17 MS. MUNN: And this is why. 18 DR. MAURO: -- why -- here's why --19 MS. MUNN: And this is why. 20 DR. MAURO: -- is why, that's got to be captured. 21 22 MS. MUNN: What we're missing here is this is 23 why. 24 DR. ZIEMER: Yeah. 25 DR. WADE: And then the -- the workgroup or the

1 Board needs to say --2 DR. ZIEMER: We'll have a basis. 3 DR. WADE: -- yes, we agree. 4 MS. MUNN: Yes. 5 DR. MAURO: We accept that --6 MS. MUNN: Yes, that's fine. 7 DR. MAURO: -- and then -- and then you tell us 8 to close or not. 9 MS. MUNN: Yeah. 10 DR. MAURO: So it stays in abeyance until --11 until you read our rationale and --12 MS. MUNN: Yes. 13 DR. MAURO: -- agree you accept that rationale. 14 MS. MUNN: Absolutely, yes. That --15 DR. MAURO: Make sure we got it right. 16 MS. MUNN: That gives us the archives that we 17 need, and a concept of having to issue an 18 additional document of some sort is what we 19 were trying to avoid with this. 20 MR. GRIFFON: Yeah, that's fine. That's fine. 21 MS. MUNN: All right. We have our -- our 22 marching orders in terms of the next meeting's 23 agenda. 24 OTIB-- let's take just a 10-minute break here, 25 give everybody a chance to catch their breath a

1 little bit, and we'll -- we'll take a look at 2 OTIB-52 and see where we are with that when we 3 get back. Ten minutes -- folks on the phone, we'll be back at five minutes till 11:00. 4 5 DR. WADE: We're not going to break the line, 6 we're just going to go on mute. 7 (Whereupon, a recess was taken from 10:47 a.m. 8 to 10:59 a.m.) 9 DR. WADE: Let us know that lunch is likely to 10 be at noon, Eastern Daylight Time, or 11 thereabouts, so curtail your appetites till 12 then. OTIB 0052: NEW CLARIFYING STATEMENTS AND ELECTRON 13 DATA REVIEW 14 MS. MUNN: Uh-huh. Do we have 52 up? Yes, we 15 do. Very good. I won't keep trying to fight 16 this --17 DR. WADE: Kathy, can you hear us? 18 (No responses) 19 Kathy? 20 (No responses) 21 MS. MUNN: Are you ready, Mr. Green? 22 DR. WADE: Is somebody on the phone who can 23 hear us? 24 (No responses) 25 Just doing a voice check. I don't hear

| 1 | anybody. |
|----|---|
| 2 | MR. SIEBERT: Yes yes, we can. |
| 3 | DR. WADE: Okay, thank you. |
| 4 | MS. HOMOKI-TITUS: We can hear you. |
| 5 | DR. WADE: Okay, thank you. Okay. |
| 6 | MS. MUNN: All right. We have several |
| 7 | editorial changes to oh, are we all right, |
| 8 | Mr. Green? |
| 9 | THE COURT REPORTER: Yes, ma'am. |
| 10 | MS. MUNN: All right. Thank you. I have a |
| 11 | report just handed to me, a draft of proposed |
| 12 | changes to OTIB-52. |
| 13 | DR. NETON: Wanda, I might be able to explain - |
| 14 | - |
| 15 | MS. MUNN: That would be helpful, Jim, if you'd |
| 16 | like to take the lead on this, please do. |
| 17 | DR. NETON: Yeah, I would. I apologize for |
| 18 | this getting out |
| 19 | MS. MUNN: No, that's quite all right. |
| 20 | DR. NETON: a little late, but it's done, |
| 21 | and Stu also this morning forwarded this to the |
| 22 | working group electronically. |
| 23 | MS. MUNN: Oh, good. So you have it by e-mail |
| 24 | if you don't have it otherwise. |
| 25 | DR. NETON: I'd also say that the title saying |
| | |

1 "ORAU Proposed Changes" you can assume that 2 that also means NIOSH (unintelligible) we've 3 reviewed (unintelligible) also say "NIOSH 4 Proposed Changes." 5 If you remember at the last working group meeting, which I guess was about a month ago, 6 7 there were six items out of 16 that were still 8 listed as "in progress" --9 MS. MUNN: Uh-huh. 10 DR. NETON: -- and the document that you have 11 now is our proposed edits to TIB-52 based on 12 the discussions we had at that working meeting 13 to try to reach closure on those six items that 14 are listed in progress. I realize these came 15 through too late to have any real substantial 16 discussion of what we're saying here. I would 17 propose or would like to propose that after 18 SC&A's had a chance, and the working group, to 19 review it, that we hold a technical call to 20 work out the details of -- of what we've 21 proposed here and see if they are appropriate 22 or additional information is needed. 23 MS. MUNN: Sounds like a reasonable course of 24 action. John Mauro has just stepped out for a 25 moment but he's returning to us right now.

1 We're -- John, we've just been handed -- and 2 you all will have it in hand very shortly --3 this -- these proposed changes to OTIB-52. And 4 Jim has proposed that we have a call once we 5 have an opportunity to take a look at this and 6 see if there are any additional issues that 7 come out of that or if this is going to be in a 8 position to be implemented following that. 9 DR. NETON: In anticipation of your next 10 question, I don't know that we can accomplish 11 this in time for the -- for the procedures 12 working group meeting at the Board that's going to happen in Redondo Beach, only because --13 14 MS. MUNN: Jim's psychic. 15 Yeah, that's fine. I don't want to DR. NETON: 16 jump -- I don't want to put words in your 17 mouth, either, but the problem is this just 18 came out and the same people that are working 19 on this are also working on the Santa Susana 20 closure document, which is also going to meet 21 Tuesday of next week. And so it'd be very 22 difficult for us to convene any -- any 23 substantive discussions or conduct any 24 substantive discussions before next -- before 25 the Board meeting.

| 1 | MR. HINNEFELD: Next week is our last week |
|----|---|
| 2 | before (unintelligible). |
| 3 | DR. NETON: And we sort of get in a feverish |
| 4 | pitch within our offices, you can imagine, just |
| 5 | before a Board meeting. But shortly |
| 6 | thereafter, or whatever is convenient for SC&A |
| 7 | and the members of the working group that might |
| 8 | want to participate, we'd be happy to sit down |
| 9 | and discuss these responses to see if they're |
| 10 | satisfactory or what we might need to do |
| 11 | DR. MAURO: So we'll try to schedule a a |
| 12 | technical conference call |
| 13 | DR. NETON: A call |
| 14 | DR. MAURO: at an appropriate time. We'll - |
| 15 | - we'll get back to you and we'll work that |
| 16 | schedule out. |
| 17 | DR. NETON: I think that'll work well because |
| 18 | we we just don't want to get in the weeds on |
| 19 | the wording here. That'll give us a chance to |
| 20 | sort of, you know, bounce it off each other and |
| 21 | then come back to the full working group with - |
| 22 | - with where we're at. |
| 23 | MS. MUNN: Could I request that SC&A have an |
| 24 | opportunity to look at this proposal and, if |
| 25 | you have any clear outstanding concerns, that |
| | |

1 you be able to at least comment on those -- no 2 report, just comment on them at our September 3 meeting so that both you and the agency will have some understanding of what the course of 4 5 the telephone conversation's likely to be. Does anyone mind if we take just a couple of 6 minutes for those of us who have a copy of this 7 8 to scan it quickly? 9 MR. GRIFFON: That's okay. 10 MS. MUNN: Thank you. 11 DR. MAKHIJANI: Does anybody have it in e-12 mailable form that can e-mail it to me, please? Stu has. 13 DR. ZIEMER: 14 DR. NETON: Stu has. 15 MR. HINNEFELD: Let me see what I can do here. 16 See, I'm -- I'm at --17 **DR. MAKHIJANI:** To arjun at ieer.org. Thank 18 you. 19 DR. ZIEMER: How many items were... 20 DR. NETON: Well, there were six open, but 21 there's some ones addressed in here that are in 22 addition to the six because they were listed as 23 in abeyance --24 MS. MUNN: Uh-huh. 25 DR. NETON: -- as well, which meant that we

1 were going to provide something in that... Ι 2 think one that could be addressed fairly 3 quickly -- there was an issue with numbers 9 4 and 10 that had to do with an interpretation of 5 the INEEL -- NIOSH's -- NIOSH had published an 6 epi review of the INEEL data, and Steve 7 Marschke did an analysis comparing the INEEL 8 data versus what we used from the -- I forget 9 the name of the database over there now at 10 They didn't compare, and we explained INEEL. 11 that part of it was that the Naval Reactor 12 facility data was included in the NIOSH study and not in our data analysis, and everyone 13 14 seemed to be in general agreement that that was 15 -- that was an acceptable -- those -- explained 16 away the dif-- discrepancy. And that is listed 17 under -- on the top of the second page, the --18 under the italic response -- responses to 19 findings 9 and 10, the bullet. You could put 20 that da-- that couple sentences in there to 21 address those two findings. 22 So the -- just -- just to -- I'm MR. GRIFFON: 23 refreshing myself on this procedure in general 24 while people are reading, but the -- the reason 25 INL and Hanford weren't used is it was only

1 annual summaries available and you had the 2 other five that you focused on -- Savannah 3 River, Rocky, Y-12, K-25, ORNL? DR. NETON: We did use Hanford and INL. 4 5 MR. GRIFFON: You did? Yeah. 6 MS. MUNN: 7 MR. GRIFFON: Then why does it say --8 DR. NETON: I think --9 MR. GRIFFON: -- five says a comparison -- it 10 says five major DOE sites. This section it 11 says --12 DR. NETON: Hang on --13 MR. GRIFFON: Well, anyway -- yeah. 14 DR. NETON: Hanford was definitely mo-- was --15 was (unintelligible). 16 MR. GRIFFON: I should read it through before I 17 ask more questions like that. So you think you 18 used them all, though, is --19 DR. NETON: Well, there was an issue with INEEL 20 for internal exposures that we didn't do because we did not have electronic data 21 22 available. But Hanford was one of the few that 23 had a correction factor, if I remember 24 correctly. 25 MS. MUNN: Yeah.

1 DR. NETON: I really think it'd be best if we -2 - we all re-- we refreshed our memories. 3 MR. GRIFFON: Yeah, yeah, yeah. DR. NETON: It would be difficult for me --4 5 By way -- by way of protocol --DR. MAURO: That's fine. 6 MR. GRIFFON: DR. MAURO: -- we effectively have a white 7 8 paper here for --9 MR. GRIFFON: Yeah. 10 DR. MAURO: -- for want of a better term. Does 11 this -- is this loaded and cli-- and clickable 12 in our database now? Other words --13 MR. MARSCHKE: Not right now. 14 DR. MAURO: Not right now. 15 MR. MARSCHKE: What I -- what I would propose 16 to do is basically take each one of the 17 responses and put it in the appropriate section 18 where we have -- we have -- in the database --19 you don't have to put everything in as a white 20 paper. In the database we have --21 DR. MAURO: Okay. 22 MR. MARSCHKE: -- spots for NIOSH's response, 23 and this is NIOSH's response, and it would go 24 in with the date associated with it of 8/22 as 25 a NIOSH response for -- to, you know, our

1 finding-- our comments on the findings, and it 2 would -- it would go in there, but not as a 3 single --4 DR. MAURO: Gotcha. 5 MR. MARSCHKE: -- white paper. 6 DR. MAURO: It's better that way. 7 MR. MARSCHKE: It'll qo in --8 DR. MAURO: By issue. 9 MR. MARSCHKE: -- by issue. 10 DR. NETON: And I would -- all the responses 11 are actually -- these are supposed to go into 12 the TIB-52 itself. 13 DR. MAURO: Proposed changes. 14 MR. MARSCHKE: Proposed changes to the --15 MS. MUNN: This is -- this is the rewrite, uh-16 huh. 17 MR. MARSCHKE: So I would -- I would try to 18 capture that -- well, I -- I'll take an action 19 item or I'll take an action item to take what's 20 on this document that Jim has handed out and 21 load this into the database --22 MS. MUNN: Uh-huh. 23 MR. MARSCHKE: -- so that it will be up there 24 definitely in time for the September 4th 25 meeting, probably -- and probably by the end of

1 -- of next week. And -- and -- and then we can basically -- you know, there is, again, a spot 2 3 in the database where we will -- we -- SC&A 4 will -- we will provide a response or reaction 5 to the NIOSH's proposed changes here, and then 6 the final thing will be direction from the 7 working group. 8 MS. MUNN: Correct. However --9 DR. MAURO: In between that conference call. 10 MS. MUNN: Right. 11 DR. MAURO: Other words, before we load our 12 response --13 MS. MUNN: Uh-huh. 14 DR. MAURO: -- we have a conference call with 15 Jim. 16 MS. MUNN: Correct. 17 DR. MAURO: So that we make sure that our 18 perspective and our response -- this is an 19 important part of the program --20 MS. MUNN: That's correct. 21 DR. MAURO: -- seems to be -- ought to be a 22 reasonable thing to do. 23 MS. MUNN: Yes. DR. MAURO: Before we load our answer, let's 24 25 make sure you have a little dialogue.

1 MS. MUNN: Correct. 2 DR. MAURO: Okay. 3 MS. MUNN: And Steve, this -- my interpretation 4 would be you will not load this entire 5 response. You will capture the thought here 6 and indicate that this appears in Section 3.1 -- will appear in Section 3.1 of the new 7 8 procedure, the corrections that appear in 9 Section 3.1 will meet the requirements of item 10 five of OTIB-52. Rather than have the entire -11 12 If --MR. MARSCHKE: 13 MS. MUNN: -- paragraph. 14 MR. MARSCHKE: -- if you prefer it that way, 15 then we -- then we -- then we can do that. I 16 mean --17 MS. MUNN: I believe that's what we really and 18 We don't need to have the entire truly need. 19 list of changes. The -- in many cases the 20 changes that go in are going to be 21 excruciatingly long, so what we really and 22 truly want is assurance that we can go to the 23 new document and find the wording that we've approved. That's what --24 25 MR. MARSCHKE: Then -- then I would agree that

1 -- then I think we should basically attach this 2 as a -- as a white paper. We do have the 3 capability of attaching files in -- into the 4 database, and so I think that we should put 5 this in as a file that is captured in the 6 database as -- and -- and -- and so that we 7 don't --8 DR. MAURO: Lose it. 9 MR. MARSCHKE: -- lose it. 10 MS. MUNN: I disagree. You're going to have 11 this -- this paper tells you what wording is 12 going to go into this item. And you and NIOSH 13 are going to discuss your reaction to that --14 MR. MARSCHKE: Okay. 15 MS. MUNN: -- after you've read it. And there 16 may be -- in the first place, there may be 17 changes to this. It may go in verbatim. But 18 in either case, your response is going to be 19 predicated on the exchange that takes place in that technical call. Then, only then, will you 20 21 make your response. And at the time you make 22 your response, it may be no, we do not agree 23 with that wording. And there's no point in 24 changing what we've already populated on the 25 database. The database tells us that we had a

1 response, you looked at the response, you 2 either did or did not approve it, and the 3 notation tells us where to find it in the new 4 revision of the OTIB. Then we have our go-to 5 information, if you capture the sense of what 6 is here. 7 DR. MAURO: I -- I would just like to point 8 out, though, that if you recall, one of the 9 main purposes of this database is an archive --10 MS. MUNN: Yes. 11 DR. MAURO: -- so that we don't lose any of the 12 granularity -- as best we can, we gra-- we hold 13 and capture the granularity of the process. 14 MS. MUNN: Exactly. 15 Now this seems to be a very DR. MAURO: 16 important part of the process. In other words, 17 at this meeting a white paper was issued and 18 there was information about -- if we don't 19 capture this, I think we do le-- we do leave a 20 hole in the archive that I think we need to 21 capture. It's one way -- I mean I'm sor-- I 22 guess I'm disagreeing with you, Wanda. 23 MS. MUNN: Well -- well, but you see, if thi --24 if we do this, then the whole purpose in having 25 a concise summary and a final disposition on

1 this single sheet gets lost. 2 DR. MAURO: Well, it's clickable. See, that 3 was the idea of the white paper. That is, in -4 - in there -- in the sheet there will be this 5 issue was addressed during this meeting, and a 6 white paper was presented by NIOSH to the 7 workgroup, and you click and you go to a 8 different -- somepl-- I mean tell me if I got 9 this wrong or not, it's --10 MR. MARSCHKE: Stu -- Stu, could you click on 11 the details of any one of those? 12 MR. GRIFFON: I'm going to -- you know, as -- I 13 mean I think -- I -- I can't agree with both of 14 you on this, but in this case I think Wanda's 15 correct 'cause this isn't really a white paper. 16 These are excerpts from the revised procedure 17 that address each finding. 18 MS. MUNN: Uh-huh. 19 MR. GRIFFON: So I think if you said -- like 20 for TIB-52, finding 13, finding 14 --21 NIOSH response is --DR. NETON: 22 MR. GRIFFON: -- the second paragraph -- second 23 paragraph of Section 4 of Procedure 52 has been 24 modified, and then you can -- you can click to 25 the procedure. You don't have to go to a white

1 -- this is not really a --2 DR. MAURO: Okay. 3 MR. GRIFFON: -- white paper. It's like a --4 excerpts from the procedure itself. 5 This is a little different than a -DR. NETON: 6 7 MR. GRIFFON: Yeah, it's a little different 8 than --9 DR. NETON: -- typical NIOSH response. 10 **MR. GRIFFON:** -- a white paper, so I would say 11 in this case Wanda's probably -- it's probably 12 fine to keep it more streamlined and go to 13 that. 14 DR. MAURO: So -- so the way to look at this, 15 then really this is your draft revisions that 16 you plan --17 MS. MUNN: Yeah. 18 DR. MAURO: -- to put into your document, which 19 is a little different than a white paper. 20 That's the language --DR. NETON: 21 That's what I'm saying. MR. GRIFFON: 22 DR. NETON: -- suggested language to modify --23 which would be -- most of our discussions at 24 the last meeting were about clarification and 25 expansion of -- of what we were -- you know,

1 what it was and what it -- what was and wasn't. 2 MR. GRIFFON: Now I -- I would say that in some 3 cases a white paper might be different and we 4 might want to link it --5 MS. MUNN: It may be. MR. GRIFFON: -- and attach it. 6 7 MS. MUNN: It may be. 8 Yeah. But this is different, MR. GRIFFON: 9 yeah. 10 MS. MUNN: But not -- not in this case. 11 MR. GRIFFON: In my eyes, anyway -- yeah. 12 So... 13 MR. MARSCHKE: I -- I come back to the 14 discussion we had earlier this morning about, 15 you know, what it's going to end up doing in 16 the -- and then what the discussion's going to 17 be is that NIOSH provided suggested changes, 18 SC&A reviewed the changes and agreed with them 19 -- or, you know -- and then is not -- you're 20 not going to be able to --21 MR. GRIFFON: No, you'll see the -- I just 22 described the granularity. You say for -- for 23 this finding, response to finding -- TIB-52-13, 24 NIOSH modified the second paragraph of Section 25 4 of that procedure --

1 DR. MAURO: That's what goes in there. 2 MR. GRIFFON: -- right. 3 DR. MAURO: Okay. 4 MR. GRIFFON: And then SC&A reviewed the 5 paragraph, discussed in a technical group; the 6 workgroup agrees that it -- so people know --7 MR. MARSCHKE: Okay. 8 MR. GRIFFON: -- know the details of what was 9 modified to address -- and we can agree or 10 disagree, but that's the discussion we can 11 have, but --12 MR. HINNEFELD: Are we saying --13 (unintelligible) extend this, but are we saying 14 that -- that our -- the action is to clip and 15 insert into the NIOSH follow-up action 16 (unintelligible) --17 MS. MUNN: Au contraire, we're saying --18 MR. GRIFFON: Right. 19 MS. MUNN: -- not --20 Not to do that, right. MR. GRIFFON: 21 MS. MUNN: The action is to capture the sense of this here and say where it's been --22 23 MR. HINNEFELD: Okay. 24 MS. MUNN: -- it's going into -- where it has 25 been inserted in the new --

1 DR. ZIEMER: Yeah, like the second paragraph of 2 Section 4 --3 MR. GRIFFON: Yeah. 4 DR. ZIEMER: -- has been revised. 5 MS. MUNN: Uh-huh. 6 MR. GRIFFON: Exactly. 7 DR. ZIEMER: And if you want to see the 8 revision, you would go to that document. 9 MR. GRIFFON: Right. 10 MS. MUNN: Correct. 11 MR. MARSCHKE: If you -- now as an option -- I 12 just thought of another option as we're talking here, but there is a field up there called 13 14 "related link," if you see the -- the -- the "related link" field, it's on the left-hand 15 16 side, right there. You can basically take this 17 whole document, put it in as a -- as a stand-18 alone document, and say basically put in here 19 and -- and give it a title, "NIOSH Proposed 20 Changes to OTIB-52," and this whole document 21 then would be -- be brought up. I mean... 22 DR. ZIEMER: Comment --23 MS. MUNN: Yes -- yes, well --24 DR. ZIEMER: -- well, there -- there is a point 25 _ _

1 MR. MARSCHKE: If that's over-- if you think 2 that's overkill --3 DR. ZIEMER: These are proposed changes, so 4 there is not a revised document to go to at 5 this point --6 MR. GRIFFON: Right. 7 DR. ZIEMER: -- so I think it makes sense to have som-- something. This proposed wording 8 9 doesn't show up anywhere else right now. 10 MR. GRIFFON: That's -- that's true. 11 MS. MUNN: Yeah, but we all have it. Yeah -- yeah, but --12 DR. ZIEMER: 13 MS. MUNN: Everybody here has it, NIOSH has it, 14 SC&A has it --MR. MARSCHKE: Well, we might not have it six 15 16 months from now. 17 MS. MUNN: Well, you may not want it six months 18 from now. It will already have been 19 incorporated into the -- it's -- it's not going 20 to --21 MR. GRIFFON: But it may -- it may change, is 22 what --23 MS. MUNN: None of this is going to go away. 24 We all are going to have this in our file until 25 it's incorporated. When it's incorporated it's

not going to be closed until this has been 1 done. When this has been done, yeah, it's in 2 3 the procedure. The procedure's issued now, and we're done, and it's okay. 4 5 MR. HINNEFELD: But don't you have (unintelligible) to be archived if you --6 7 MR. GRIFFON: Yeah. 8 MR. HINNEFELD: -- put this document in a -- in 9 here as a link? 10 MS. MUNN: Why do you want a duplicate archive? 11 MR. HINNEFELD: I -- because --12 MS. MUNN: If -- if he puts it --13 MR. HINNEFELD: -- it may not be a duplicate 14 because --DR. ZIEMER: This -- this --15 16 MR. HINNEFELD: -- the final --17 DR. ZIEMER: -- this doesn't exist anywhere. 18 MR. HINNEFELD: -- the (unintelligible) of the 19 product may be different. 20 MR. GRIFFON: May change after discussions, right. 21 22 MR. HINNEFELD: And there's going to be 23 discussions after this. See, suppose there's 24 disagreement, and SC&A says no, that doesn't 25 fix it --

1 MR. GRIFFON: Yeah. 2 MR. HINNEFELD: -- and that comes out in a 3 technical conversation and there's adjustments to be made. You have then this technical 4 5 conversation about something that you don't 6 know what it was. You don't have an archive of 7 what they were talking about that they had the 8 disagreement about. You understand what I'm 9 saying? 10 MR. GRIFFON: I -- I think it makes sense. 11 MR. MARSCHKE: I mean it's -- it's not a hard 12 thing to do, it's basically to put a link on 13 there --14 MR. GRIFFON: Yeah. 15 MR. MARSCHKE: -- throw the document into the -16 - into a -- a --MR. GRIFFON: And it doesn't make the screen 17 18 any busier. 19 MR. MARSCHKE: It doesn't make the screen any 20 busier. 21 MR. GRIFFON: It's just a link, it's not taking 22 text -- it's not a lot of text on the screen. 23 MR. MARSCHKE: Right. 24 MS. MUNN: So how do you --25 MR. GRIFFON: I think it's fine, yeah.

| 1 | MS. MUNN: where do you put this related |
|----|--|
| 2 | link? Where do I go to? |
| 3 | (Whereupon, Mr. Griffon and Mr. Marschke spoke |
| 4 | simultaneously.) |
| 5 | MS. MUNN: No, no, no, I I know you're |
| 6 | putting your reference there. What am I |
| 7 | referring? |
| 8 | MR. MARSCHKE: You you click on that |
| 9 | MS. MUNN: What am I |
| 10 | MR. MARSCHKE: When you want to look at that |
| 11 | related link, you just |
| 12 | MR. GRIFFON: (Unintelligible) |
| 13 | MR. MARSCHKE: box and you click on it. |
| 14 | MS. MUNN: And where have you put it? |
| 15 | MR. MARSCHKE: To the it'll be in a |
| 16 | MR. GRIFFON: On the O drive |
| 17 | MR. MARSCHKE: subdirectory on the O drive - |
| 18 | _ |
| 19 | MR. GRIFFON: (unintelligible), right. |
| 20 | MR. MARSCHKE: which, when you click on |
| 21 | that, it'll automatically bring it up and |
| 22 | display it as a PDF file. |
| 23 | DR. ZIEMER: And it'll be called NIOSH/ORAU |
| 24 | proposed changes draft of a certain date, I |
| 25 | guess. Right? |
| | |

1 DR. NETON: Yeah, 8/22. 2 DR. ZIEMER: 'Cause these are still proposed, 3 are they not? 4 DR. NETON: They're draft changes that we 5 propose. 6 MS. MUNN: All right. If we're doing that any 7 time that you propose more than one change, 8 then are we doing that at every change that we 9 have requested? Is every single one of those -10 - because the normal routine, to this point, 11 has been one item at a time, and we have not 12 placed all of the discussions, and I never had 13 any -- personally never had any intention of 14 placing all of the discussions --DR. ZIEMER: Well, it seems to me the other 15 16 option would be to put in the proposed wording 17 for each item there, then --18 MR. GRIFFON: Then it gets too busy, yeah. 19 DR. ZIEMER: Then this becomes pretty busy, but 20 NIOSH proposes the following word changes. 21 MR. HINNEFELD: So you -- that's what I was saying, you would clip out --22 23 DR. ZIEMER: And then you would clip this --24 MR. HINNEFELD: -- you would clip the five, you 25 would clip that out and you'd put it in your

1 NIOSH follow-up so you have that text in there, 2 and then that provides the basis for what is 3 discussed in the conversation. 4 DR. ZIEMER: Seems to me you could do it either 5 way. 6 So you could use it this way --MR. HINNEFELD: 7 MR. GRIFFON: Either way. 8 MR. HINNEFELD: -- or attaching this, it seems 9 like they both accomplish the same thing, which 10 is to capture the archive of the discussion, 11 'cause if you don't capture it somehow, when 12 there's a disagreement down here you don't have an archive of what you disagreed about. 13 14 MR. GRIFFON: My feeling is when you get into a 15 longer text, you want the link. When you get -16 - if it's a short response, you want it right 17 in the field, you know? Just from a user 18 standpoint. 19 DR. ZIEMER: Well, an example would be this one 20 on the bottom of the second page, revision of 21 Section 6.1 for finding 12, they've got a whole 22 -- little more than a page of text there. 23 MR. GRIFFON: Yeah. 24 DR. ZIEMER: So do you want that in this 25 document or do you want to just be able to

1 click on it? 2 MS. MUNN: Or do you want a summary of the fact 3 that it's there and an indication where it can That's what I --4 be found? 5 MR. GRIFFON: It can't be found anywhere. 6 It can't be found anywhere because DR. ZIEMER: 7 it doesn't exist. 8 MS. MUNN: It ex--9 The difference I have now is that MR. GRIFFON: 10 -- that -- that Stu or -- I mean it's proposed 11 language, you're right. It's not -- it's not a 12 -- it's not a rev that exists out there as a 13 existing revision of the procedure. 14 MR. HINNEFELD: Right. 15 MR. GRIFFON: So it's proposed language so I 16 take back what I said. If it was an existing 17 document, then I would say yeah, use the small 18 excerpt and reference to it, don't include this 19 as a separate document. But it's proposed, so 20 it's on the table. We're discussing it. Have 21 the link to it, then we can -- it may change by 22 the time they publish a -- a revision of the 23 procedure. 24 MS. MUNN: So it is actually the desire of the 25 workgroup and the Board to have this reflect

1 all of the wording that was proposed, 2 regardless of whether or not it is ever 3 incorporated, somewhere in this archive? We 4 want every comment that's made and every 5 suggested change, regardless of whether it's 6 incorporated? It was my intention that we 7 would -- when it was incorporated, it would 8 appear here, or the direct reference to where 9 it is would be --10 MR. GRIFFON: Well, it's -- it's got to have 11 some -- some meat on the bone. I mean you 12 can't -- this thing, at the end of the day, is 13 just going to say we reviewed everything and 14 everything was appro-- you know, revised and 15 approved and --16 MS. MUNN: No, it isn't. It's going to say 17 where -- it's going to say where the change was 18 so that you can go to it. So if --19 MR. GRIFFON: But --20 MS. MUNN: -- if we want all of our -- all of 21 the machinations --22 MR. GRIFFON: But it -- this is only -- it's 23 not only an archive. You're telling us that 24 we're going to use this real time in our 25 meetings, so if I want to come into a meeting

1 and I want to be able to discuss a certain 2 finding, if I -- if I just pull up and it says 3 that NIOSH and SC&A had a technical phone call 4 about this and they both agreed that it's okay, 5 if I don't ha-- if I don't have some of that --6 that detail or links to that detail, then you know, how do I know what -- what I'm okaying? 7 8 Because it was sent to you --MS. MUNN: 9 MR. GRIFFON: I qo to the --10 MS. MUNN: -- by e-mail. 11 MR. GRIFFON: -- final version of the publi--12 MS. MUNN: No, you go to your e-mail. MR. GRIFFON: Oh, you go ba-- oh, so now we're 13 14 going back to --15 MS. MUNN: No --16 MR. GRIFFON: -- a matrix we're going to send 17 around by --18 DR. ZIEMER: E-mails are --19 MS. MUNN: No, we aren't. No --DR. ZIEMER: -- unofficial documents, I -- I 20 21 think this is not different than -- you -- if 22 you go back to the very first finding, there's 23 a NIOSH response. Now there can be another 24 response to the response, and so on. This --25 this is a -- this -- each of these is a

response.

| | - |
|----|---|
| 2 | MR. GRIFFON: A response, yeah. |
| 3 | DR. WADE: Wanda posed the right question. You |
| 4 | just need to answer the question. Do you want |
| 5 | to keep track of all steps along the way? |
| 6 | DR. ZIEMER: Well, that's what we're doing |
| 7 | here. |
| 8 | MR. GRIFFON: We've been doing, yeah. |
| 9 | DR. WADE: So I think the answer to Wanda's |
| 10 | question is yes. The question is, at what |
| 11 | cost? It doesn't seem to me the cost is |
| 12 | particularly high. |
| 13 | DR. ZIEMER: Or at what level of detail. |
| 14 | MS. MUNN: At what level of detail, because we |
| 15 | have a list of what has transpired, but what we |
| 16 | have done in the past is capture the sense of |
| 17 | the item. We have not repeated verbatim the |
| 18 | item that was before us. |
| 19 | DR. ZIEMER: Yeah, and I think the difference |
| 20 | here is in the past NIOSH has said we plan to |
| 21 | revise the document, and so then it's sort of - |
| 22 | - it goes into abeyance and we're sort of |
| 23 | awaiting that to occur. And that's sort of |
| 24 | where we are here, except now you've come back |
| 25 | and said here's how we plan to revise it. |
| | |

1 MR. GRIFFON: Propose -- right. 2 DR. ZIEMER: And we haven't always had that 3 detail. So you're right, it's a little 4 different kind of step, 'cause we usually don't 5 have detail on the proposed revision. You 6 would revise it, and we may or may not see it 7 before it's revised, at which point it would 8 get looked at again. Right? 9 DR. NETON: We could do it that way, too, if 10 you'd be happy with that, but --11 It seems to me this document DR. WADE: 12 contains intellectual information. I don't 13 think you want to lose it. Whether or not you 14 excerpt from it and put it there, or you link 15 to it, I think one or the other would be 16 appropriate. 17 If we're going to do that, then I MS. MUNN: 18 propose that we be very cautious in the 19 language of the titles of this kind of material 20 that we put up, and I would suggest that we 21 very clearly -- that the first word in the 22 title be "draft" -- "draft of proposed NIOSH 23 changes to" -- and the date, as a part of the 24 title. 25 DR. WADE: Thank you.

1 DR. NETON: I -- I suspect that there are going 2 to be some changes here. There's going to be a 3 little give and take. We put our best shot 4 here, but I -- my sense is that there may be 5 some suggestions by SC&A that are going to be 6 made to change this wording. I mean that's one 7 of the reasons --8 MR. GRIFFON: Well, I know that's one of the 9 reasons you put it out as a proposed change -right? -- instead of a final revision. 10 11 DR. NETON: It wasn't so -- it wasn't as clear-12 cut last meeting -- oh, yeah, we will modify 13 this sentence and say that. These are more 14 sort of qualitative arguments that we presented 15 that, in principle, everyone agreed to. But I 16 thought it'd be best if we put them on the 17 table. Are they sufficiently robust, I guess -18 19 DR. ZIEMER: Is this a little different from --20 for you where, in the past, you would develop a procedure and it's -- goes through your 21 22 internal process, it's reviewed, approved, 23 comes out, then we and our contractor look at 24 it. Versus here we're sort of given an 25 opportunity to input it as you're developing

1 it. 2 DR. NETON: Yeah. 3 DR. ZIEMER: Is that better for you or worse 4 for you? 5 No, it's -- actually we would DR. NETON: 6 prefer to stay out of that issue then, but in 7 this particular case I think these were more 8 qualitative issues. They were -- they were --9 there's nothing quantitative here. These are 10 qualitative descriptions of why we did what we 11 did, and I just sensed that it was better in 12 this particular instance --13 DR. ZIEMER: In this case, so this is --14 DR. NETON: I wouldn't make it a practice. DR. ZIEMER: -- a little different than normal 15 16 practice anyway. 17 DR. WADE: But the good news is you have the 18 flexibility in your tool to do this. Wanda's 19 suggestion of draft and date in the title -- it 20 seems to me that's what we do when we move 21 forward. 22 MS. MUNN: Then we're going to have to 23 therefore build what we have heretofore not 24 had, another file bin that we can link to. 25 MR. MARSCHKE: It's available --

1 MR. GRIFFON: It exists. 2 MS. MUNN: Uh-huh. 3 MR. MARSCHKE: The -- the user of the tracking 4 system won't -- won't need -- that'll be all 5 transparent to the use of the tracking system. 6 DR. WADE: If it's agreeable to you, Wanda, I'd 7 say we modify the title, we put it there, and 8 we -- we track this and we think about it. And 9 if it becomes unworkable in the future, so be 10 it. It seems to me, at least for now, that's a 11 reasonable --12 DR. ZIEMER: But you can link to any number of documents easily -- right? 13 14 MS. MUNN: Yes. 15 DR. ZIEMER: I mean you just have a --16 MR. MARSCHKE: Only one document per --17 DR. ZIEMER: No, no --18 MR. MARSCHKE: -- issue. 19 DR. ZIEMER: -- no, no. 20 MR. MARSCHKE: Right. 21 DR. ZIEMER: No, no, but I mean --22 MS. ADAMS: In the future you'll be able to 23 link --24 DR. ZIEMER: -- there's all kinds of documents 25 you could link to.

1 MS. MUNN: Uh-huh, definitely. We just have 2 not done this type of draft --3 DR. ZIEMER: Right. 4 MS. MUNN: -- or preliminary document. 5 DR. WADE: Well, that's because, in part, NIOSH normally doesn't --6 MR. GRIFFON: 7 Right. 8 DR. WADE: -- come forward this way. 9 MS. MUNN: All right, we'll build the new bin. 10 We don't know what its name is -- at least I 11 don't know what its name is, but we'll build a 12 new bin. We'll re-title this document and --13 DR. ZIEMER: Well, do -- do we need to know 14 what the bin is? All we need to know is --15 MR. GRIFFON: No, there's nothing there -- it's 16 right there, related document. 17 DR. ZIEMER: -- a link will have the -- will 18 have "draft, NIOSH proposed changes" -- right? 19 That's the --20 MR. MARSCHKE: The title will come right up in 21 the -- in the link there and you just click on 22 it and it'll come up as a -- you know, as a PDF 23 file in -- in Acrobat and you'll be able to 24 read it. 25 MR. GRIFFON: Right.

1 MR. MARSCHKE: And it'll be transparent to the 2 -- to the use of the tracking system. 3 DR. WADE: Let's make sure the title reflects 4 the changes that --5 MR. MARSCHKE: Yes. 6 -- Wanda has specified. DR. WADE: 7 MR. MARSCHKE: Yes. 8 DR. ZIEMER: Just move this information. 9 MS. MUNN: So done. 10 DR. WADE: That's right. That's what you 11 really need is that lower left-hand corner at 12 the (unintelligible). That'd be good practice 13 all the time, as a matter of fact. 14 MS. MUNN: Very good. We'll still get a 15 preliminary report from SC&A --16 DR. MAURO: Oh, I would --17 MS. MUNN: -- that --18 DR. MAURO: That -- that begs the question, 19 okay, we are going to respond. 20 MS. MUNN: Yes. 21 DR. MAURO: And we're going to -- response, I'm 22 presuming, is going to be loaded into the 23 system. 24 DR. ZIEMER: Well, are you going to have your 25 detailed responses by then or is this just an

1 early --2 MR. GRIFFON: Technical call --DR. ZIEMER: -- feel for --3 DR. MAURO: Well, that's a good -- let's talk 4 5 about -- yeah, I --6 DR. ZIEMER: It wasn't -- it wasn't clear to me 7 that we were tasking you or just to get an 8 early feel. What -- I mean you only have less 9 than two weeks to prepare anything. 10 MS. MUNN: Yeah, all we've asked for is just 11 their acknowledgement of how -- their progress 12 and --13 DR. ZIEMER: Oh, oh, not -- not the initial 14 respon--15 MS. MUNN: The technical call is not going to 16 take place until after --17 MR. GRIFFON: Yeah. 18 MS. MUNN: -- that -- that tentative 19 (unintelligible). 20 DR. MAURO: Well, let -- tell by the logi--21 okay, certainly SC&A is going to carefully 22 review this. We have a group of individuals --23 Arjun and Steve are probably the two principal 24 authors of the original review. They will 25 review it. I don't know how long that'll take.

1 We will call, schedule a conference call. We 2 will take minutes, as we always do for all of 3 these technical conference calls, and then there will -- then we will have that. 4 So we'll 5 have some -- we'll have, in writing, SC&A's 6 opinion or position regarding each of these 7 issues, the results of the dialogue that took 8 place written up as minutes of the conference 9 call. Now, what do we do with that? 10 MS. MUNN: It'll go on a link, apparently. 11 DR. MAURO: It goes on a link? MR. MARSCHKE: No, it goes -- well, it either 12 13 goes on a link or it goes in the --14 MR. GRIFFON: Each field. 15 MR. MARSCHKE: -- each field. You know, you 16 have to -- I think, depending upon the -- the -17 - the volume of it -- I mean -- and how wordy 18 we want to get. You know, if we get -- if we 19 get a white paper and we want to put it -- you 20 know, or -- or ten pages of -- of discussion, 21 we want to put it in the link. If we get a 22 sentence or two --23 MR. GRIFFON: Then it's in --24 MR. MARSCHKE: -- then we just want to put it 25 in the field.

1 MR. GRIFFON: Right. 2 MR. MARSCHKE: I think -- you know --3 MR. GRIFFON: Easy enough. MR. MARSCHKE: -- we have to be flexible. 4 The 5 other thing is -- you know, the question is --6 I mean you -- you set up the -- the -- the 7 outline of how to do it. The question is when 8 we do it, and I don't -- like Wanda said, I 9 don't think we're going to get it done by the 10 next meeting --11 MS. MUNN: No --MR. MARSCHKE: -- unless Arjun and I --12 13 MS. MUNN: -- it won't be done. 14 MR. MARSCHKE: -- look at these and say yeah, 15 we agree with everything here; there's nothing 16 for us -- further for us to add. Then I -- you 17 know, in that -- in that case, then we may be 18 able to, you know -- we may be able to, at the 19 -- at the September 4th meeting, say, you know, 20 we recommend that, you know, these changes be 21 made and these issues be closed. But --22 MS. MUNN: That would be nice, but I don't 23 anticipate it. I -- all I'm expecting --24 MR. GRIFFON: And -- and this is my problem --25 I mean the technical call's fine --

| 1 | MS. MUNN: It doesn't happen |
|----|--|
| 2 | MR. GRIFFON: but I would also ask that the |
| 3 | technical call you you're going to notify |
| 4 | workgroup members. Right? |
| 5 | DR. WADE: As always. |
| 6 | MR. GRIFFON: (Unintelligible) a call. |
| 7 | MS. MUNN: It's not going to happen until after |
| 8 | September anyway. |
| 9 | MR. GRIFFON: Right, right, right. |
| 10 | MS. MUNN: So |
| 11 | MR. GRIFFON: But I mean |
| 12 | (Whereupon, Mr. Griffon and Dr. Wade spoke |
| 13 | simultaneously.) |
| 14 | DR. NETON: Workgroup members are always |
| 15 | invited |
| 16 | MR. GRIFFON: Yeah. Right, right. |
| 17 | DR. MAURO: The only thing that's different |
| 18 | we're doing everything the way we've always |
| 19 | done it in the old way |
| 20 | MR. GRIFFON: Yeah. |
| 21 | DR. MAURO: except now we're trying to put |
| 22 | it into a database that is accessible and |
| 23 | forever available for the world to see at some |
| 24 | time in the future. That's the only thing |
| 25 | that's changed, as opposed to a piece of paper |
| | |

| 1 | in a file cabinet. |
|----|--|
| 2 | DR. NETON: It's not that different from how we |
| 3 | approached Bethlehem Steel. I keep going back |
| 4 | to that one, but we went back and forth on |
| 5 | on what we're going to do over here, and SC&A |
| 6 | in fact never did review the final document |
| 7 | the final approved document, but we sort of |
| 8 | bartered not bartered, but went back and |
| 9 | forth on all the technical pieces that we were |
| 10 | |
| 11 | DR. MAURO: See, to me, the |
| 12 | DR. NETON: that we were at. |
| 13 | DR. MAURO: there's nothing really different |
| 14 | that we're doing right now except we're making |
| 15 | it a more accessible record for posterity. |
| 16 | MS. MUNN: Uh-huh. |
| 17 | DR. MAURO: So at any time anyone who wants to |
| 18 | know what did we talk about on this day during |
| 19 | that meeting, and here's what we did. And I |
| 20 | think it's very valuable to have that. |
| 21 | MS. MUNN: Yes, I think the only place in which |
| 22 | we may differ at little is our is our view |
| 23 | of the level of detail that's required here. |
| 24 | DR. MAURO: That's true. |
| 25 | DR. WADE: That's what we're arguing about, |
| | |

| 1 | what's reported. But I would say take a |
|----|--|
| 2 | take a read of the document. If you find |
| 3 | complete concurrence, then let the workgroup |
| 4 | chair know. If not, then schedule your |
| 5 | technical call. |
| 6 | DR. MAURO: If you recall, one of the things we |
| 7 | talked about was ultimately the rock we're |
| 8 | standing on is a transcript. But everyone |
| 9 | but the transcript is enormous, so really all |
| 10 | we're really I mean we could always say, you |
| 11 | know, it's in the transcript. If you want to |
| 12 | find out the history of how we got to where we |
| 13 | got |
| 14 | DR. ZIEMER: Go to the transcript. |
| 15 | DR. MAURO: read the transcript, but that's |
| 16 | thousands of pages. |
| 17 | DR. ZIEMER: But this isn't in the transcript |
| 18 | even. |
| 19 | DR. MAURO: But that would not be in the |
| 20 | transcript, that's that's true. |
| 21 | DR. WADE: Unless we read it in. |
| 22 | DR. MAURO: That's correct. |
| 23 | DR. ZIEMER: Unless you read it in. |
| 24 | DR. WADE: This is a good plan. |
| 25 | MS. MUNN: Uh-huh, we're fine. I think we know |
| | |

1 what we're doing. At least I have some idea of 2 what I think we're doing. We'll see how close 3 I come. 4 Let's see, we did close nine and ten so we 5 don't have to worry about that. And thank you 6 very much for having that ready. OTIB 0070: STATUS (SC&A REPORT EXPECTED BY 8/31 FOR 7 NIOSH RE-REVIEW) The next item that we're going to talk about is 8 9 OTIB-70. We had said earlier that SC&A was 10 working on the report, and Hans I think was 11 going to be putting it together and that should 12 be ready for re-review before the end of this 13 month. So the question is where are we, how 14 close are we, is the date good or what do we 15 have to look forward to. Hans, are you on? 16 DR. BEHLING: Yes, I am. Can you hear me? 17 MS. MUNN: I can. 18 DR. BEHLING: Okay. 19 MS. MUNN: You're good. 20 DR. BEHLING: I wasn't sure exactly, Wanda, as 21 to what I was supposed to have sent you today, 22 other than what you just mentioned as a 23 confirmatory date for a draft deliverable. I'm 24 also prepared to give you a brief overview as 25 to what I am at this very moment preparing to

1

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put down in the draft report.

MS. MUNN: That would be appreciated very much if you would.

4 DR. BEHLING: Okay. Let me just give you, for 5 those who are at this point going to be looking 6 at this but may not remember fully all the 7 details, OTIB-70 used to be used for AWEs that 8 were engaged in some uranium and thorium 9 activities for a period of time, but for these 10 facilities that data may not be available with 11 regard to internal exposures in the form of the 12 conventional bioassays. And the principal concern is for those AWE facilities where there 13 14 may have been residual contamination in the 15 workplace and the AWE may have continued to 16 operate for some period of time thereafter, but 17 not in a capacity that supported the Manhattan 18 Engineering District or the AEC. For -- for --19 just for reference purposes, the Dow Chemical 20 Company would apply -- would -- would 21 potentially be assessed by OTIB-70, and perhaps 22 in retrospect even Bethlehem Steel would be, 23 because they were rolling steel and then for a 24 period of a few years they were engaged in 25 rolling uranium. So OTIB-70 would apply to

1 those AWEs engaged in uranium and thorium 2 activities, but it would apply to those AWEs 3 where there is very little data in terms of 4 dose reconstruction from the internalization of 5 either uranium and thorium. So having said that, the OTIB-70 then proceeds 6 7 to provide you with a series of methods by 8 which this particular dose reconstruction may 9 proceed. And I think for the -- for the sake 10 of simplicity, those methods are summarized in 11 Table 4-1 of -- of the OTIB, which is on page 12 16, so those who may have access to that it 13 would be easy to really look at that table, and 14 I'll just briefly go over it. What, in essence, OTIB-70 tries to do is to 15 16 give you seven different methods by which a 17 dose reconstruction can take place that focuses 18 on the internalization of uranium and thorium. 19 And so for those of you who may have access to 20 Table 4-1, the methods include the following. 21 There are a total of three methods, and they are really in descending hierarchy. The first 22 23 method you will see on that table would be 24 considered -- the top would be the -- the most 25 desirable, on the assumption that these data

| 1 | are available. So the Table 4-1 really |
|----|---|
| 2 | provides you with a series of X's in the |
| 3 | various columns that says, for method number |
| 4 | one, what we have available to us for dose |
| 5 | reconstruction are operational air sample data |
| 6 | meaning we have picocuries or becquerels or |
| 7 | dpm per cubic meter during the period of that |
| 8 | facility's operation that is of concern, that - |
| 9 | - namely that period when they were supporting |
| 10 | the Manhattan Engineering District or the AEC |
| 11 | involving uranium or thorium. And in in the |
| 12 | first one we have, in addition to operational |
| 13 | air sampling data, we have post operational. |
| 14 | And there the dose reconstruction would really |
| 15 | rely on really two sets of of air sample |
| 16 | data; namely operational and post-operational. |
| 17 | And obviously the assumption is that once you |
| 18 | stop processing or refining or working with |
| 19 | either uranium or thorium, the the source |
| 20 | term would go down and, at some point in the |
| 21 | post-operational period, you would only be |
| 22 | dealing with the residual contamination as a |
| 23 | source term for airborne material. And but |
| 24 | the use of operational to post-operational, |
| 25 | you would then develop a decay factor or source |

1 term reduction factor, Lander* -- much like the 2 Lander we -- we use when we decay-correct for -3 - for a given isotope. And so that's method 4 number one, and there's really very little to 5 be said about it other than obviously the fact that in all of these cases you're still far 6 7 removed from the most desirable approach to 8 dose reconstruction for internal, namely 9 urinalysis, whole body counts, chest counting, 10 and those kinds of bioassay, either in vivo or 11 in vitro. But the first method that is defined 12 in Table 4-1 is probably the most reliable one 13 because it really relies on empirical air 14 sampling data. And there's very little to be 15 said other than to recognize the limitation of 16 using air sampling data as a way of doing 17 bioassay -- as a way of substituting for other 18 bioassay data that might be the most 19 preferable. 20 In -- in method two, which the available data 21 consists of is strictly operational, and at 22 that point you obviously have to determine what 23 is the post-operational air sampling data. And of course that raises the question as to how 24 25 you would go about doing this. And if you look

at -- in Table 4-1, the -- the preferred method 1 2 there is to basically estimate the post-3 operational air sampling data by decaying the operational air sampling data using a decay 4 5 factor of one percent per day. And of course 6 that is a number that was derived in OTIB --7 and I do have some serious questions about it 8 because I do believe it's likely to be a value 9 that is perhaps not supportable. The -- the 10 value of one percent per day as a removal rate 11 for source term removal rate was derived by a 12 formula that was identified in the TIB, and 13 that formula makes use of ventilation rate, 14 meaning that if a building is assumed to have a 15 ventilation rate of one change-out per hour, 16 and it also is based on an assumed resuspension 17 factor which turns out to be considerably 18 different from the one that's ultimately 19 employed. And so I have several issues with 20 the use of a one percent per day removal factor 21 as is required for dose reconstruction using 22 method two. 23 Also the issue -- and I'll just briefly go into 24 it. I won't obviously try to completely 25 document the various issues that I have raised

| 1 | in my draft report, but the ventilation rate is |
|----|---|
| 2 | certainly one that has to be looked at very |
| 3 | carefully in terms of what it implies with |
| 4 | regard to source term removal. Obviously we |
| 5 | know that facilities in the '50s, '60s, '70s |
| 6 | and '80s may have had a different ventilation |
| 7 | system that we are used to today, and it's also |
| 8 | important to note that perhaps these AWEs were |
| 9 | never really intended to be radiological |
| 10 | facilities, meaning that we're not looking at |
| 11 | facilities as we might design today using |
| 12 | engineering controls, ventilation systems, |
| 13 | sealing all surfaces that would minimize the |
| 14 | buildup of contamination, so we have to take |
| 15 | all this in consideration and realize that |
| 16 | perhaps some of the assumptions with regard to |
| 17 | resuspension that are used here, and also |
| 18 | ventilation, may not apply here. In other |
| 19 | words, the the source term removal rate of |
| 20 | one percent is really predicated on the notion |
| 21 | that when a certain volume of air has been |
| 22 | removed containing resuspended airborne |
| 23 | particulates, that those airborne particulates |
| 24 | are now permanently removed. That would be the |
| 25 | case if we had a very highly efficient HEPA |
| | |

| 1 | filter system. In days past, perhaps in |
|----|---|
| 2 | facilities that may not have been operated as a |
| 3 | radiological facility, the use of HEPA filters |
| 4 | may or may not even (unintelligible) issue. |
| 5 | Secondly, the the there would be a |
| 6 | gradient for airborne contamination. If the |
| 7 | floor surface, for instance, were to be the |
| 8 | source term for the contamination that gives |
| 9 | rise to resuspension, we all do know that the - |
| 10 | - the rate of resuspension from loose |
| 11 | contamination will be affected by the particle |
| 12 | diameter, and of course the redeposition is |
| 13 | also affected by the particle diameter, which |
| 14 | means that when we talk about the the |
| 15 | airborne contamination levels that may reach up |
| 16 | to a five-meter-high ceiling where perhaps the |
| 17 | return vent is located, you will see a gradient |
| 18 | that will obviously have been maximized or |
| 19 | will be maximal at the surface of the floor, |
| 20 | but thereafter gradually decrease. And there's |
| 21 | data that I've looked at that suggests that the |
| 22 | air that's subject to ventilation may be a |
| 23 | factor of five lower in terms of airborne |
| 24 | concentration than at the breathing zone at |
| 25 | approximately five foot. So these are all |
| | |

1 variables that I talk about in terms of perhaps 2 looking at this removal rate of one percent 3 which is used in other -- not just in method 4 two but in several other methods as you go 5 through that table. And -- and I do believe 6 that when you look at that, it is possibly a factor of ten, or even more, higher than it 7 8 should be. 9 Let me just briefly go on to the third level. 10 Again, the first three all are based on air 11 sampling data, which, on the hierarchy of 12 measurable empirical data, would be much higher 13 than the -- the subsequent ones which -- which 14 will rely on surface contamination. But for 15 method number three, again, we have -- we have 16 the available data to us is post-operational, 17 and then we have to really identify what is the 18 operational air sampling concentration for 19 which we have no data. And according to TIB-20 70, here we are looking at, for instance, O--21 ORAUT-206, which really is the Battelle team 22 TBD 2000 -- 6000 for uranium and 6001 for 23 thorium as a reference facility that says okay, 24 we don't have, for this particular AWE in 25 question, specific information on this

1 operational air concentration, but we will use 2 surrogate data that is derived from the 3 Battelle TBD 6000 for uranium and 6001 for --4 for thorium. And there, too, we have potential 5 questions, and those questions are really conditional questions or findings because those 6 7 particular documents have been reviewed by SC&A 8 and we had conditional findings that, as far as 9 I'm concerned -- or I know, and you may want to 10 correct me, John, or somebody else whether or 11 not that review of Battelle TBD 6000 and 6001 have been fully resolved, but there are some 12 13 issues that would potentially affect their use 14 here in TIB-70 as is indicated in this 15 particular protocol. 16 In method four we have a switch-over where the 17 available data sources are not necessarily 18 going to be available from air contamination, 19 which is obviously the more direct approach to 20 assessing what may be inhaled, but we now have 21 to rely on surface contamination. In other words, dpm per 100 centimeters square, which we 22 23 can translate into a square meter, and then we 24 have to then take another leap of faith forward 25 in saying well, what does surface contamination

really relate to in terms of air contamination, because that's what we're inhaling, and that would be obviously our principal exposure pathway.

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5 And starting in -- in method four, we have 6 operational and post-operational surface 7 contamination, and so the recommended approach here is to now say we have two empirical sets 8 9 of measurements, operational and post-10 operational surface contamination expressed 11 usually in dpm per 100 centimeter square, 12 either as removable or total. And then we have 13 to supply -- or apply a resuspension factor in 14 order to determine how to convert surface contamination into airborne contamination. 15 And 16 the choice defined by TIB-70 is the use of a 17 resuspension factor of one times ten to the 18 minus six. 19

19Now that potentially raises some significant20questions because we -- we don't really have21empirical data that is frequently available for22facilities such as the AWEs and -- and what we23are at this point required to do here is to24essentially take literature data and see how25typical that is to the partic-- potential AWE

1 that we need to look at. And the TIB-70 defines or identifies certain measurements in -2 3 - in table form. And I looked at those, and I have to say they are obviously documented 4 5 values of -- of resuspension factors from literature that for a facility that has a high 6 7 level of activity, as would be expected if an 8 AWE that was at this point rolling uranium or 9 thorium but then ceases to do so and goes back, 10 in the case of Dow Chemical or Bethlehem Steel 11 resumes rolling steel or doing something else 12 that was not linked to -- to the AEC or the Manhattan Engineering District people. 13 14 Obviously under those conditions you would have 15 a substantial amount of -- of foot traffic, of 16 other activities, of grinding, of ventilation 17 and so forth, which would make the values that 18 I see in the literature much more applicable 19 than the ultimate value that was defined in --20 in TIB-70 as the appropriate value, which they 21 derived from the NUREG 1720. And looking at 22 NUREG 1720, the value of one times ten to the 23 minus six is documented there, but NUREG 1720 24 is really a document that is used for D&D of 25 licensed facility awaiting license termination.

1 And what really I believe is -- is a serious 2 flaw here in this assumption of applying a one 3 to the minus six resuspension factor is the 4 fact that that value is really derived for a 5 facility that has undergone extensive decontamination in anticipation of license 6 7 termination. And extensive decontamination 8 usually focuses on the one component in -- in 9 airborne activity that is most important and 10 that is removable or loose or suspendable. 11 When a facility is subject to D&D for license 12 termination and to ensure compliance with 10 13 CFR 20 that says after -- after license 14 termination, unrestricted use, light 15 industrial, the exposure is limited 25 millirem 16 TEDE/PEDE* in any given year, and of course 17 what you would normally focus on obviously is 18 the easiest thing and that is to clean up any 19 removable contamination that is subject to 20 And so the value that is defined resuspension. 21 in 1720 as (unintelligible) minus six, while it 22 may be an appropriate resuspension value for a 23 facility that has already undergone extensive 24 decontamination and is awaiting license 25 termination, I would be hard pressed to apply

1 that particular value to -- to the facility 2 such as Bethlehem Steel or Dow Chemical that 3 for a period of time was subject to -- to a --4 experiencing radiological work activities and 5 then resumes normal activities without the extensive D&D that you would normally expect 6 7 that would apply to NUREG 1720. 8 And so I have some concerns about the -- the 9 loss of source term, namely the reduction of 10 the source term of one percent per day. That's 11 a key issue. I also have some serious con-concern about the use of a resuspension factor 12 13 that is a default value defined in 70 -- TIB-70 14 at (unintelligible) minus six. And there are 15 other issues that I have problems with I won't 16 go into because I think it's not something that 17 I want to get into in this brief period today 18 that I have, but you will see in my draft 19 report that talks about appen-- attachment B, 20 which is another default approach that makes 21 use of empirical data from three facilities for 22 the thorium facility, but I won't go into that. 23 Method five and six are -- are again facsimiles 24 of method four, but in method five you don't 25 have operational surface contamination and so

1 you have to at some point in time decide how to 2 devise some post-operational surface 3 contamination. And again, this makes use of 4 the one percent per -- per day as a reduction 5 factor or source term reduction factor that 6 I've already mention. 7 And the same thing with method six, which is 8 the reverse where you have post-operational 9 surface contamination but you don't have pre-10 operational surface contamination. And -- and 11 again, here we use what I've already mentioned, 12 the Battelle TBD-6000 and 6001 or the -- the Attachment B values that (unintelligible) 13 14 empirical dataset from -- from the literature. 15 Again I won't really go into it, but I do have 16 a fairly extensive and exhaustive analysis of 17 those particular references that are cited as 18 usable for -- for TIB-70. 19 The last one is method seven, and that is 20 obviously at the bottom of the hierarchy. 21 Method seven says we don't really have any air 22 sampling data, operational, post-operational, 23 nor do we have any surface contamination data 24 available for the operational/post-operational 25 period, and -- and we may not even really have

1 a source term. To me, source term for -- for 2 method number seven would really be defined by the residual contamination. And for method 3 4 seven, TIB-70 tells you to -- to use NUREG 5 1400, and I looked at NUREG 1400 and says how 6 is NUREG 1400 related to this particular approach. And NUREG 1400 is really -- the 7 8 title of NUREG 1400 is "Air Sampling in the 9 Workplace" and it's really intended for a 10 facility that has a very modest amount of 11 radioactive material. And the -- the question 12 -- it may be an NRC licensee, but the potential 13 for radioactivity in the air is nominal and 14 therefore the intent of NUREG 1400 is to give 15 the licensee the option of saying do I need to 16 monitor my employees for the internalization 17 from airborne radioactivity. And it is 18 basically defined by a simple protocol that 19 says you -- you are bound by federal 20 regulations defined in 10 CFR 20 to monitor any 21 worker who may be exposed to airborne 22 contamination in excess of ten percent of an 23 ALI in a year, and therefore this is your criteria. How do I determine whether or not 24 25 any potential worker may be exposed to in

| 1 | excess of ten percent ALI and there and they |
|----|---|
| 2 | provide you with a protocol. So this whole |
| 3 | NUREG is really designed not to serve as a |
| 4 | substitute for monitoring an individual, either |
| 5 | to airborne air sampling by means of air |
| 6 | sampling and/or by by actually but |
| 7 | determine whether or not the whole issue of the |
| 8 | sampling program is even necessary. And in |
| 9 | that particular situation they provide you with |
| 10 | a formula of potential intake that is |
| 11 | reproduced in NUREG 70 that is based on a host |
| 12 | of of variables that includes the value Q, |
| 13 | which is really defined as the total quantity |
| 14 | of unencapsulated material processed in a year |
| 15 | at the facility and a host of other variables |
| 16 | that include the release factor, the |
| 17 | confinement factor, and dispersibility of the |
| 18 | material. I won't go into the detail, but what |
| 19 | is really a a conflict here is that for the |
| 20 | use of this particular formula that involves |
| 21 | potential inhalation that is Q times R times C |
| 22 | times E, you need to have a value of Q, which |
| 23 | is really the source term. And as I've already |
| 24 | stated out, the the method number seven |
| 25 | basically says I don't know any I don't have |
| | |

1 any of that data. So it's almost a paradox 2 that you would be asked to look at NUREG 1400 3 which, among other things, requires a -- an assignment of a value for Q, meaning the source 4 term, which in this case would not be something 5 6 that -- you work in the facility but in -- in 7 TIB-70 the source term would be defined by the 8 -- the total amount of surface contamination, 9 but it's also -- based on Table 4-1, you're 10 told that you won't have any -- any values that 11 involves operational and/or the -- the post-12 operational surface contamination. So I'm not 13 sure how that particular NUREG would apply, and 14 -- and I raise that as an issue that would 15 limit the use of NUREG 1400 as a viable option 16 as part of method seven. 17 In addition there's the issue of ingestion, 18 which basically defaults to one of the OCAS 19 TIBs and -- and I have some comments about 20 that. And that pretty much is a summary of 21 what I intend to provide you with in a draft 22 report that I will try to get into your hands 23 on or before the last day of -- of this month. 24 MS. MUNN: That would be greatly appreciated. 25 You clearly have done your usual

1 extraordinarily fine detailed review, and we're 2 looking forward to seeing it, Hans. Do you 3 think that we will in fact have it in 4 electronic form before we all leave to go to 5 Redondo Beach? I quess --6 DR. BEHLING: Yes, you will. 7 MS. MUNN: I'm really wondering whether we'll 8 have an opportunity to even bring it up on our 9 agenda when we meet at -- following that --10 that Redondo Beach. 11 DR. BEHLING: I will try to have the electronic 12 version of this draft report in your hands on or before the end of this month, which would 13 14 then give you approximately several days or 15 almost a week, perhaps, to review its content 16 and -- and to get familiar with the 17 information. As I said, this -- this -- in my 18 write-up I'm going to be including a lot of 19 exhibits because this particular OTIB makes use 20 of a lot of secondary documentation, including 21 I mentioned the Battelle TBD-6000 and 6001, 22 certain other reports for -- for surrogate data 23 involving other facilities that had processed 24 thorium in the past, so I'm trying to minimize 25 the amount of effort that the Board members

1 will have to engage in in trying to really 2 understand what are the issues by -- by which 3 these other documents have been incorporated as 4 a default approach for TIB-70. So you're going 5 to see a lot of exhibits in my write-up so that 6 it precludes the need to look at the other 7 OTIBs or Battelle TBDs or other references (unintelligible) --8 9 MS. MUNN: We do appreciate that. It will make 10 it certainly much simpler for the workgroup 11 members. I'm sure as NIOSH reviews it they're 12 familiar enough with those other documents that 13 it wouldn't be necessary for them, but I'm sure 14 we'll certainly appreciate it. Understandably 15 NIOSH won't have an opportunity to look at that 16 before the next meeting, but speaking for 17 myself -- and I think probably most of the 18 other workgroup members -- we will appreciate 19 having an opportunity to have a look at that at 20 the same time that NIOSH begins their review. 21 DR. BEHLING: Yeah, if there's any problem, I will certainly inform the Board. But as it --22 23 as it stands right now, I'm -- I'm pretty much 24 -- I would say 95 percent done. I just need to 25 sort of clean up a few things, but I hope

1 actually within the next two or three days to 2 have -- have a rough draft available for in-3 house review, that may include Steve and John 4 and others, and then hopefully a few days later 5 you'll get your draft copy of that report. 6 MS. MUNN: That will be greatly appreciated. 7 Thank you very much. 8 DR. BEHLING: You're welcome. 9 MS. MUNN: And now, without objection -- yes? 10 MR. GRIFFON: Before we break for lunch, can I 11 just ask -- I think this is from NIOSH, really -- do we know -- I'm looking through TIB-70 --12 which sites this is applicable to, or you 13 14 didn't really list them in the -- in the TIB. 15 Is it -- is it left open because you're not --16 MR. HINNEFELD: Well, it's supposed to be --17 it's not supposed to be specific to certain 18 sites. I mean it -- it gives -- as I 19 understand it, there are several situations 20 described -- you know, various --21 MR. GRIFFON: Right, right. 22 MR. HINNEFELD: -- types that Hans talked 23 about, and so it's intended to be broadly 24 applicable. And then you could use, depending 25 upon what data you have for the site you're

1 interested in, you choose the section that 2 you'd be doing, so it's supposed to be broadly 3 -- broadly applicable. 4 DR. MAURO: In -- in general --5 MR. GRIFFON: Yeah. 6 DR. MAURO: -- you have an AWE site that's --7 its AWE operations have terminated --8 MR. GRIFFON: Right. 9 DR. MAURO: -- but you are concerned about the 10 post-AEC operation residual activity, and 11 there's a need to somehow predict what the 12 exposures would be to workers who still work there, but it --13 14 MR. GRIFFON: Yeah, yeah, I understand the 15 issue, I understand the issue, I just --DR. MAURO: Oh, okay, and it did come up with, 16 17 for example --18 MR. GRIFFON: Yeah. 19 DR. MAURO: -- Dow. Dow is -- there's this 20 post-1960 -- the Dow --21 MR. GRIFFON: Yeah, and tha-- that's what I'm 22 getting at is -- I think the -- the key -- the 23 -- that's more review of implementation of 24 this, I guess, because how this works on 25 certain sites is not really part of this TIB,

1 be-- you know, 'cause I think -- I think --2 DR. BEHLING: Can -- can I interrupt, Mark --3 MR. GRIFFON: -- well, I think there's some big 4 questions about how much data -- you know --5 MR. HINNEFELD: How much is enough --MR. GRIFFON: -- oftentimes this data in the 6 non-operational period is -- you know, I mean 7 8 we can all -- we all know that from 1990 to '92 9 ORAU did a lot of surveys for -- you know, for 10 decommission and stuff --11 MR. HINNEFELD: FUSRAP, yeah. MR. GRIFFON: -- right, for FUSRAP, so you have 12 13 a gap of 40 years --14 DR. MAURO: Right. 15 MR. GRIFFON: -- and you have four -- you know, 16 you have a -- a fair -- some weight data in the 17 '90s, and the question of representativeness of 18 that --19 DR. MAURO: Need to fill it in. 20 MR. GRIFFON: That big gap, yeah. 21 DR. BEHLING: Can -- can I comment --22 MR. GRIFFON: That's going to vary 23 (unintelligible) sites --24 DR. BEHLING: -- Mark? For instance, as John 25 already mentioned, the Dow Chemical was

| 1 | assessed using method one, meaning that they |
|----|---|
| 2 | felt they had air sampling data during the |
| 3 | operational period when when that facility |
| 4 | processed material that is subject to OTIB-70 |
| 5 | concerns, and then they had data that they felt |
| 6 | was legitimately representative of a post- |
| 7 | operational. And then what you do is you |
| 8 | actually look at the two and you determine what |
| 9 | lambda is, and then calculate your air |
| 10 | concentration based on on the decay that is |
| 11 | derived empirically from those two values for |
| 12 | any year in between. And and I think if you |
| 13 | look at the Dow Chemical document, the SEC |
| 14 | petition for Dow Chemical or the evaluation for |
| 15 | the SEC, you will see that approach. |
| 16 | Now the question is that and I'm sure that |
| 17 | we will probably go into that with respect to |
| 18 | how legitimate was the post-operational air |
| 19 | sampling data, which for Dow Chemical occurred |
| 20 | in 2006, and I won't go into details but at |
| 21 | that time they had already undergone two D&D |
| 22 | efforts. But they also, to to further |
| 23 | complicate the issue, they continued to pro |
| 24 | process thorium after that brief period when |
| 25 | thorium was actually involved with the AEC, so |
| | |

1 there are two complicating factors, the --2 MR. GRIFFON: I mean the -- the other thing I 3 think we at -- as the Board, the workgroup need to keep in mind -- and this'll be more site-4 5 specific considerations I think, but you know, 6 the ac-- the activities of -- during the post-7 operational period. I mean I think -- you 8 know, I'm just -- I'm just paying close 9 attention to that 'cause I'm not sure that 10 that's really accounted -- it's accounted for 11 in a generic sense, but you know, I -- I --12 having some experience in cleaning up several 13 of these sites, I -- I know that those 14 questions were raised to me by former employees 15 that, you know, we've been working there for 30 16 years doing XYZ, and now you're in there with 17 respirators on doing -- you know, I mean -- so 18 that kind of thing, you know, we're almost 19 assuming sort of non-intrusive activities went 20 on in this interim period, and that's not 21 always the case. In some sites they -- you know, so tha-- and then you-- then you have 22 23 this question of are we really modeling the 24 source term correctly, you know, so -- anyway -25

| 1 | DR. WADE: Uh-huh, this will be discussed. |
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| 2 | MR. GRIFFON: put that on the table. |
| 3 | DR. WADE: Miss Wanda? |
| 4 | MS. MUNN: Yes? |
| 5 | DR. WADE: Ready to go to lunch? |
| 6 | MS. MUNN: We are ready to go to lunch, yes. |
| 7 | DR. WADE: Want to take an hour? |
| 8 | MS. MUNN: We'll take a full hour. We'll be |
| 9 | back here at 1:10. |
| 10 | DR. WADE: We're going to break the line. |
| 11 | We'll dial back in about 1:05. Thank you all. |
| 12 | (Whereupon, a recess was taken from 12:07 to |
| 13 | 1:09.) |
| 14 | DR. WADE: Hello, this is the workgroup |
| 15 | conference room and we're just about ready to |
| 16 | begin. Ray, are you ready? |
| 17 | THE COURT REPORTER: Yes, sir. |
| 18 | DR. WADE: Ms. Munn? |
| 19 | INDIVIDUAL ITEM REVIEW - 2 ND SET |
| 20 | MS. MUNN: It's our expectation this afternoon |
| 21 | to try to do what I have heretofore found to be |
| 22 | the impossible, which is track what we're doing |
| 23 | from the second set. And if we have any |
| 24 | opportunity at all to do so, we will take a |
| 25 | look at the third set. |
| | |

1 The second set of procedures that we had has 2 been dated 6/8, I believe. Is that correct? 3 There were originally 112 of them -- findings, 4 that is. We have 37 open. So if what I have 5 on my screen is anywhere near correct, that 6 would start us with OTIB-12 or not? 7 MR. HINNEFELD: Yeah, I am waiting for my 8 computer. 9 MS. MUNN: All right. It's very helpful that 10 Stu can illuminate that end of the room with 11 this data, rather than relying on --12 MR. HINNEFELD: You're saying we're starting 13 with OTIB-12? 14 MS. MUNN: Well, no, we're -- we're starting with the second set, and that would be dated 15 16 6/8/2006. And my first -- although I was 17 supposed to have been sorted by date here, it 18 didn't work out that way. My -- it appears 19 that the first 6/8 that I have is OTIB-17. 20 MR. HINNEFELD: How are you sorting? 21 MS. MUNN: By date -- sorting by date. 22 **MR. HINNEFELD:** Procedure number? 23 MS. MUNN: Start by date, then by procedure 24 number. 25 MR. HINNEFELD: Well, I just got thrown off.

1 MS. MUNN: Uh-huh, the date is 6/8/06, because 2 that was when the second set was first provided 3 to us. We're giving the -- the process a 4 workout here. What is TIB-17? 5 MR. GRIFFON: 6 DR. MAURO: Non-penetrating? 7 MR. HINNEFELD: Shallow dose thing? 8 DR. MAURO: Is that non-pene-- non-penetrating 9 radiation? 10 MS. MUNN: Do you have these all in your head, 11 John? 12 That one I do. DR. MAURO: 13 MS. MUNN: I'll be interested to see if Stu's 14 sort is more effective than mine. Kathy, if 15 you're on, you and Steve, we're giving your --16 I am personally giving your hard work a workout 17 here. This is the crucial test. If Wanda can 18 do it, anyone can do it. I don't quite 19 understand why I am not getting the date sort 20 that I asked for. 21 MR. GRIFFON: I don't think it's --22 MS. MUNN: I'm going to go back and do that one 23 more time. 24 MR. GRIFFON: Can you just sort by second set? 25 I thought there was, you know, a little --

1 MR. MARSCHKE: You can sort by finding date or 2 you have to put the -- you have to put it in 3 twice. If you go --4 MS. MUNN: I did put the --5 MR. MARSCHKE: You have to put --MS. MUNN: -- finding date --6 7 MR. MARSCHKE: -- you have to put the date in. 8 You have to tell it -- oh, okay. 6/8/2000 --9 you probably have to put it in over on two, as 10 well. And then you have to do a sort on it. 11 MS. MUNN: Yeah, I did the sort. Originally I 12 had the date and --13 MR. MARSCHKE: (Unintelligible) --14 MS. MUNN: -- the first one --15 MR. MARSCHKE: -- that's not... 16 MS. MUNN: Okay. And originally I sorted by 17 finding date --18 MR. GRIFFON: It doesn't look too good up 19 there. Oh --20 MR. HINNEFELD: Oh, well --21 MR. GRIFFON: -- oh, you haven't --MR. HINNEFELD: I want to get it up there 22 23 before I turn (unintelligible). 24 MS. MUNN: And the second one was the procedure 25 number, and the third one -- it shouldn't

1 matter that much. So if I put the date in, it 2 works. If I don't put the date in, it doesn't 3 work. 4 MR. MARSCHKE: Yeah. 5 MS. MUNN: Therefore the tracking system some 6 (unintelligible) that we have becomes even more 7 valuable and necessary. We have -- correction, 8 now what comes up for me is PR-5 -- there it 9 is. 10 MR. HINNEFELD: Well, I don't know why, but it 11 came up for me, too. 12 MS. MUNN: Sure enough. Now with -- with a 13 little help from my friends here, maybe I can 14 get through this. There are --15 **MR. HINNEFELD:** (Off microphone) 16 (Unintelligible) one last screen 17 (unintelligible). MS. MUNN: It says Section 3 references do not 18 19 contain any citations. 20 Steve is helping us here. 21 MR. MARSCHKE: (Unintelligible) helping her. 22 MS. MUNN: No, it's very helpful to know why 23 I'm not getting what I'm getting. 24 MR. MARSCHKE: What did you want to get? 25 MS. MUNN: Oh, I got -- what we got.

1 MR. MARSCHKE: Okay. 2 MS. MUNN: Now what I need to do is take a look 3 at -- what we need to look at is PR-5 to see --4 no, I don't want to do that. That wasn't what 5 I wanted to do. Oh, now I'm back where I 6 started from. So if we sort by the finding 7 date, which is 6/8 -- it gets me what I want. 8 But then when I want to view PR-5, if I print 9 new reports, it doesn't give me what I want. I 10 click here --11 MR. MARSCHKE: For some reason you're not 12 showing the view details. Your -- for some 13 reason your screen is not showing the details -14 15 MS. MUNN: No --16 MR. MARSCHKE: -- and I don't know why what's -17 - what's -- see where -- where Stu's arrow is 18 up there? 19 MS. MUNN: Uh-huh, right. 20 MR. MARSCHKE: For some reason that doesn't 21 show up on your screen. MS. MUNN: No, it doesn't show on my screen, 22 23 and I don't know why. 24 MR. MARSCHKE: Maybe if you hit the -- expand 25 the -- hit that -- yeah, that -- there you go.

1 Now hit the detail screen right in there. 2 MS. MUNN: Ah, there it is. I wonder why it 3 didn't come up. DR. MAURO: You didn't have the full screen. 4 5 What you -- you -- in other words, the full 6 screen. 7 MR. MARSCHKE: There you go. 8 MS. MUNN: Okay. 9 MR. GRIFFON: The form wasn't showing up, yeah. 10 MS. MUNN: So now we have OCAS PR-5 and what do 11 we have open? Section 3 doesn't contain any 12 citations, although it's unlikely this 13 procedure is -- oh, my goodness. 14 DR. MAURO: That's Steve Ostrow. 15 MS. MUNN: Holy cow, this procedure... there 16 were no references, so is there --17 MR. HINNEFELD: This procedure is not dose 18 reconstruction procedure or anything like that. 19 This is --20 DR. MAURO: Was this a -- oh, is this one of 21 these quality assurance ones? Steve Ostrow did 22 all the reviews of the quality assurance ones, 23 and I recognize Steve's --24 MS. MUNN: The terminology. 25 DR. MAURO: The terminology.

1 MR. MARSCHKE: The -- the handout that I gave, 2 basically what I did was, based upon the last 3 workgroup meeting, I took the initiative to 4 review the 37 -- or I thought I was given the 5 direction to review the 37 open --6 MS. MUNN: We tasked you to look at them. 7 MR. MARSCHKE: Right, the 37 open issues, and 8 to look at the responses that NIOSH had given 9 and see whether we agreed, disagreed or -- or -10 - or what, and that's the handout that I gave 11 is basically the results of that review of 12 those 37 open set two issues. 13 MS. MUNN: So what Steve has given us here show 14 that the first four issues from PR-005 can be 15 closed since the author of the finding agrees 16 with the NIOSH response. 17 **UNIDENTIFIED:** That goes back to your comment. 18 MR. GRIFFON: That goes back to my point, yeah. 19 Tho -- SC&A's not closing these so I think we 20 need to --21 MS. MUNN: No, that's right, we need to take a 22 look at --23 MR. GRIFFON: And it does say recommended, 24 yeah. 25 MR. MARSCHKE: Place to start.

1 MR. GRIFFON: Yeah. 2 MR. MARSCHKE: So recommended status --3 MR. GRIFFON: Right. 4 MR. MARSCHKE: -- I mean -- but the only thing 5 you can do is you can look at --MR. GRIFFON: 6 Right. 7 MR. MARSCHKE: -- the finding and you can look 8 at the response and see --9 MR. GRIFFON: Right. 10 MR. MARSCHKE: -- whether you agree as well. 11 MS. MUNN: Right. And the NIOSH response was 12 very straightforward. There were no references 13 for item one. Can the members of the workgroup 14 accept that as closure? 15 (No responses) 16 Any objection to that? 17 DR. ZIEMER: I'm not objecting, I just want to 18 make sure I understand this. So initially the 19 finding was they should have cited something --20 it appeared that there was a -- there were 21 comments about the assessment that they didn't 22 cite any particular sources. Is that correct? 23 MR. HINNEFELD: Yes. 24 MS. MUNN: Uh-huh. 25 DR. ZIEMER: And the response is well, these

1 were experienced assessment people so they were 2 basing it on their general knowledge without --3 is that --4 MR. HINNEFELD: They wrote it from their 5 experience and it reads just like the previous -- what they'd done as assessors in previous 6 7 jobs --8 DR. ZIEMER: Right. 9 MR. HINNEFELD: -- in terms of establishing an 10 assessment plan, the assessor -- you know, 11 essentially starting out (unintelligible) 12 assessment plan and with the criteria he had to 13 compare (unintelligible) items 14 (unintelligible). 15 DR. ZIEMER: So they weren't -- it wasn't 16 somebody else's material. 17 MR. HINNEFELD: We didn't pull out a QA 18 reference on (unintelligible) assessment 19 (unintelligible) anything like that. 20 (Unintelligible) sat down and wrote it from 21 previous experience. 22 MS. MUNN: Is there any concern with this being 23 closed? 24 (No responses) 25 Let's close it.

1 Item two, the next one would be -- no, can't do 2 that, so that's... 3 MR. GRIFFON: So the -- there are no 4 qualifications required for doing an assessment 5 -- that's what this says, right? -- in the 6 NIOSH response? And when -- when we're talking 7 assessments, you're talking -- I -- just to 8 refresh my memory, all these are --9 MR. HINNEFELD: (Off microphone) We'll 10 (unintelligible) -- they're assessments of the 11 contract -- usually they're --12 MR. GRIFFON: Oh, okay. 13 MR. HINNEFELD: -- assessments of the 14 contractor. 15 MR. GRIFFON: Right. 16 MR. HINNEFELD: Some aspect of what the 17 contractor is doing, whether -- you know, just 18 as an arbitrary case, the filing of the hard 19 copies, written responses from DOE or 20 something, you know, is that being done 21 appropriately or something like that. And I 22 just made that up, I don't know --23 MR. GRIFFON: Yeah. 24 MR. HINNEFELD: -- (unintelligible) ever did 25 that or not. Or -- I -- I can't even think of

1 very many examples, but it would be --2 MR. GRIFFON: Okay, that's --3 MR. HINNEFELD: -- (unintelligible) could assess -- I don't know if they did this, but 4 5 the implementation of the software, quality 6 aspects for dose reconstruction 7 (unintelligible) or something like that. So 8 the assignment -- I mean personnel are selected 9 and assigned based on their abilities, rather than just say well, anybody can go do any 10 11 assessment. That -- that's not what we're 12 saying here. 13 MR. GRIFFON: Right. 14 MR. HINNEFELD: You know, the assignments are 15 made based on the abilities of the assessors, 16 who are -- these are mainly done by health 17 physicists, although sometimes we will have 18 somebody else --19 MR. GRIFFON: I like that response --20 MR. HINNEFELD: -- (unintelligible) --21 MR. GRIFFON: -- better than the one you've got 22 in the database, quite frankly. 23 MR. HINNEFELD: Yeah. 24 MR. GRIFFON: It makes me feel better, you 25 know.

1 MS. MUNN: Perhaps the wording is --2 MR. HINNEFELD: Well, I can reword that. 3 MR. GRIFFON: Yeah. 4 MR. HINNEFELD: Because they're -- you know, 5 the assignments to the teams --MR. GRIFFON: 6 Yeah. 7 MR. HINNEFELD: -- are made based on the 8 abilities --9 MR. GRIFFON: Obviously you're not going to 10 have someone assess the database implementation 11 that doesn't have experience in --12 MR. HINNEFELD: (Off microphone) 13 (Unintelligible) 14 MR. GRIFFON: Right, right. 15 MR. HINNEFELD: Right. 16 MS. MUNN: Can we just add the word "qualified" 17 after "any" -- "any qualified OCAS staff" --18 MR. HINNEFELD: I could -- well, I can put in 19 the words about, you know, assignments are made 20 based on the abilities and qualifications of 21 the individual, you know -- or assignments to -22 23 MR. GRIFFON: That's fine. 24 MR. HINNEFELD: -- are made on that. 25 MS. MUNN: All right. Will that meet the

1 concerns of proper language? 2 MR. GRIFFON: Yeah. 3 DR. MAURO: These -- these are related to the 4 quality assurance procedures, which I -- am I 5 correct, we're in a different realm now. We're 6 not talking about any kind of technical 7 assessment. 8 MS. MUNN: No. 9 DR. MAURO: We're making sure -- this is almost 10 like an audit, an internal audit to make sure 11 that the procedures are being followed? Т 12 recall -- see, I recall the series of 13 procedures that Steve Ostrow reviewed, and --14 and I remember they're dealing primarily with 15 what you would call quality -- quality 16 assurance audits. And there was -- there were 17 a number of them. We're not really what I 18 would call -- they were to make sure the 19 procedures were being followed, so -- am I cor-20 - am I -- am I correct about what these are, as 21 opposed to being a sci-- a scientific 22 procedure, how do you go about doing a dose 23 calculation. It's a procedure of -- to make sure that the dose calculations were being done 24 25 in accordance with your procedures.

1 MS. MUNN: These are administrative. 2 DR. MAURO: Administrative -- these are 3 administrative. MS. MUNN: -- rather than technical 4 5 assessments. 6 Yes, these -- these tend to be MR. HINNEFELD: 7 administrative. 8 MS. MUNN: Yes. So we have an action that 9 NIOSH will revise the wording and so do we want 10 to see this again or not? Can we just accept 11 it as closed? 12 DR. ZIEMER: He told us what the new wording would be. 13 14 MS. MUNN: Closed? Closed. 15 MR. HINNEFELD: (Off microphone) Then will the 16 rewording go in there where we put our initial 17 response? (Unintelligible) put that in or... 18 No. MS. MUNN: 19 DR. ZIEMER: No. 20 MS. MUNN: No, those --21 DR. ZIEMER: (Unintelligible) your initial 22 response. 23 MR. HINNEFELD: In other words, down in a NIOSH 24 follow-up or something? 25 MS. MUNN: It goes down under NIOSH follow-up,

| 1 | yeah, at the instruction of the workgroup, |
|----|---|
| 2 | wording's changed to as it is. |
| 3 | Okay, very good. We'll see you in Redondo |
| 4 | Beach. |
| 5 | Next item, item three, checklists are optional. |
| 6 | They're referred to in the text as examples and |
| 7 | terms such as may be used are included. Steve |
| 8 | has accepted that and listed it as closed. Is |
| 9 | there any objection? |
| 10 | (No responses) |
| 11 | If not, item three is closed. |
| 12 | Next, item four, which Ostrow has also |
| 13 | accepted, shows the checklists provided are |
| 14 | examples, as labeled. The assessor has the |
| 15 | freedom to develop a checklist, if used, that |
| 16 | best suits the needs of the assessment. Any |
| 17 | problem with that response or with the |
| 18 | agreement of SC&A? |
| 19 | (No responses) |
| 20 | It can be marked closed. |
| 21 | Our next item is PR-7, dose reconstruction |
| 22 | review, item one. |
| 23 | MR. HINNEFELD: This procedure is the what |
| 24 | is done by the OCAS health physicists when a |
| 25 | draft dose reconstruction comes in from |
| | |

1 (unintelligible). That's -- this is the review 2 that's done by OCAS (unintelligible) it's the 3 procedure for that review. MS. MUNN: And our last instruction that I can 4 5 see is to have SC&A review the modified TIB-8. 6 I'm assuming that has been done. Is that the 7 last -- I'm not -- I'm not getting down to the 8 -- look -- look here. 9 MR. HINNEFELD: Okay, you're on seven. 10 MS. MUNN: Someone who is more conversant with 11 this than I --12 MR. HINNEFELD: Okay, we sent this one response 13 at one point. 14 MS. MUNN: Yes. 15 MR. HINNEFELD: There were three TIBs, 6, 7 and 16 8 --17 MS. MUNN: Yes. 18 MR. HINNEFELD: -- all which we said we would 19 revise, and so only -- only part seven -- only 20 7 pertains to this and then SC&A will review 21 the modified -- this should actually be seven. 22 Okay. 23 MS. MUNN: Yeah. 24 DR. ZIEMER: Six or 7. 25 MS. MUNN: Says in either 6 or 7, and so my

1 question then is I'm assuming that -- has that 2 been done? That -- that's been done. 3 MR. MARSCHKE: Steve reviewed the -- yeah, if 4 you look, he -- he reviewed the changes made to 5 revision two. MS. MUNN: And has accepted them, and it's now 6 7 marked closed. Any objections to that? 8 DR. ZIEMER: The original finding was they need 9 to clarify the -- the authority under which the 10 _ _ 11 MR. HINNEFELD: The auth-- the authority that 12 established the frequency of -- originally 13 there were three types of reviews of -- of 14 these dose reconstructions. 15 DR. ZIEMER: Right. 16 MR. HINNEFELD: (Off microphone) The basic 17 review is what's -- it's sort of the default 18 (unintelligible) over, you do it -- you do that 19 and you do your review, and you approve it or 20 make comments on it. The second level review 21 is a documented checklist -- you know, the 22 checklist items from the procedure, you have to 23 complete the checklist when you do the review, 24 and that -- the -- our -- NOCTS, our computer 25 system that controls -- I mean the movement of

1 a case through the case process, and so we do 2 all of our interactions with the case in NOCTS, 3 so one of the things we do is either review it 4 and then either approve it or return it. So 5 five percent of the time when a health physicist opens up a case to review -- or is 6 7 ready to approve it, he's presented -- he's 8 presented with a form, a checklist -- I guess 9 it's either way, whether he returns it or not, 10 approves it, the -- the system automatically 11 presents him with a checklist that he has to 12 complete in order for -- to move the case on. 13 So five percent of -- so there's no -- you 14 know, so that -- that is the authority of what 15 -- I quess the frequency of the various types 16 in the first procedure was -- you know, wasn't 17 so -- who's going to tell you how many times to 18 fill out the checklist. The third category, by 19 the way, which blind reviews which we don't do. 20 (Unintelligible) a blind review -- in other 21 words, completely duplicating the dose 22 reconstruction, we don't do that. So this --23 there are only two now, and the computer 24 automatically pops up so that's essentially in 25 the computer program in this way, where the

1 authority is (unintelligible) but the frequency 2 -- or it's programmed -- the five percent is 3 programmed into the computer program. 4 MS. MUNN: Yeah. What were you asking in the 5 DR. ZIEMER: 6 finding? By whose authority do you decide 7 what's to be reviewed or what -- what's --8 MR. HINNEFELD: Well --9 **DR. ZIEMER:** -- what's the finding? 10 The finding was -- we list MR. HINNEFELD: 11 these three levels of review but we don't say how often we're going to do a basic or how 12 13 often we're going to use the intermediate level 14 or how -- how often we're going to use the 15 blind, how many of those you're going to use, 16 that's (unintelligible) --17 DR. ZIEMER: That's not clear from the finding 18 that they're challenging the frequency so much 19 as who -- who made the decision --20 **MR. HINNEFELD:** (Off microphone) 21 (Unintelligible) wanted to say there was no one 22 specified to decide who that -- what that was. 23 DR. ZIEMER: Oh, I see --24 MR. HINNEFELD: The procedure doesn't specify 25 who decides.

1 DR. ZIEMER: Okay. And now you don't need --2 MR. HINNEFELD: (Off microphone) And now you 3 don't -- the procedure in a -- in a subsequent 4 programming of the computer (unintelligible) --5 DR. ZIEMER: So now it's a policy of (unintelligible) --6 7 DR. MAURO: So -- so is it automated? 8 MR. HINNEFELD: Uh-huh. 9 DR. MAURO: I understand. 10 DR. ZIEMER: So the decision has already been 11 made --12 MR. HINNEFELD: The decision has already been 13 made --14 DR. ZIEMER: -- (unintelligible) there's a 15 policy, this is --16 MR. HINNEFELD: Yeah. 17 DR. ZIEMER: -- how it's done procedurally, so 18 nobody has to -- like we don't have to say that 19 Stuart Hinnefeld will decide --20 MR. HINNEFELD: Yeah, I don't have to see how 21 many we've reviewed and say gee, we reviewed 22 80; we need another -- we need four -- we need 23 four higher level, you know, documents. 24 DR. ZIEMER: Computer select these at random? 25 MR. HINNEFELD: As far as I know. They -- the

1 computer guys tell me it's random, but I -- you 2 know how that works. 3 MS. MUNN: Uh-huh. 4 MR. HINNEFELD: As far as I know, it's randomly selected. 5 6 There -- there were so many that DR. ZIEMER: 7 came up at --8 MR. HINNEFELD: Yeah, yeah, every 20 or whatever, however often -- however it selects. 9 10 I don't even know -- I don't know if it's every 11 20th one or it has some other selection. 12 MS. MUNN: Is -- is the problem we're 13 discussing right now our failure to capture the 14 -- the real thought of the finding correctly? 15 MR. HINNEFELD: Well --16 MS. MUNN: 'Cause remember we -- we populated 17 these as quickly as we could and -- and the 18 whole idea was to be brief but to catch the 19 sense of it. Was authority the incorrect word 20 here? Perhaps it --21 MR. HINNEFELD: No, as -- as I recall, the 22 finding was -- as I recall the finding, it was 23 you don't specify who decides how often to do 24 the various levels of review. 25 DR. ZIEMER: Yeah, is it the person that's

| 1 | doing the review, is it Larry or |
|----|--|
| 2 | MR. HINNEFELD: Is it the HP or is it Larry or |
| 3 | or who is it? You don't specify who is it |
| 4 | who decides how often. |
| 5 | MS. MUNN: So authority is adequate or correct. |
| 6 | MR. HINNEFELD: Yeah, I believe it's captured |
| 7 | okay. |
| 8 | MS. MUNN: All right. Fine. Then we can |
| 9 | accept the assessment of the of the original |
| 10 | finder that the response is adequate and it's |
| 11 | closed? |
| 12 | DR. ZIEMER: I'm okay with it. |
| 13 | MS. MUNN: Okay, 7-01 is closed. Next is 7-02, |
| 14 | the role of the contract oversight team leader |
| 15 | should be delineated in Section 4. |
| 16 | MR. HINNEFELD: (Off microphone) I believe that |
| 17 | was a (unintelligible) like a responsibilities |
| 18 | section or something? I suppose the contract |
| 19 | oversight team leader was mentioned in the |
| 20 | procedure in some fashion, but he wasn't |
| 21 | mentioned in the procedures in the |
| 22 | responsibilities section. I think that's what |
| 23 | (unintelligible). |
| 24 | MR. MARSCHKE: It's the other way around, |
| 25 | probably. |
| | |

MR. HINNEFELD: Or maybe it's the other way around.

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MR. MARSCHKE: Or maybe -- no, I think you're right actually.

5 MR. HINNEFELD: Anyway, the revi-- the revision 6 of that kind of took that out, the -- it --7 it's -- dose reconstruction review is assigned 8 to all the health physicists as a -- and they 9 fit it into the rest of their work -- into 10 their work time. Certain health physicists 11 have a lot of -- do a lot of work on SEC petitions, evaluation reports and things like 12 13 that, so they don't do very many dose 14 reconstructions. Some health physicists 15 primarily do dose reconstruction. So -- and 16 everybody understands that they are to get dose 17 reconstructions out of the -- what's called the 18 un-- the unassigned queue in -- in NOCTS and 19 put them in their queue and do the revisions as 20 they can get to them. And certain guys have 21 that high on their -- high on their list 22 because they don't have other tasks competing 23 so much. Other guys have it a little lower on 24 the (unintelligible) 'cause they have competing 25 activities.

| 1 | DR. ZIEMER: Okay, but in the original |
|----|---|
| 2 | before you revised, this this document |
| 3 | mentioned the contract oversight team leader |
| 4 | but didn't say what their responsibility was, |
| 5 | that's |
| 6 | MR. HINNEFELD: (Off microphone) I believe |
| 7 | that's what the finding (unintelligible). |
| 8 | DR. ZIEMER: The new revision doesn't even |
| 9 | MR. HINNEFELD: (Off microphone) Doesn't even |
| 10 | (unintelligible), right. |
| 11 | DR. ZIEMER: include that because that |
| 12 | person has no responsibility. Is that your |
| 13 | MR. HINNEFELD: That's my under that's my |
| 14 | understanding. There is no specific |
| 15 | responsibility for dose reconstruction review |
| 16 | assignment. |
| 17 | DR. ZIEMER: There is a person called that. |
| 18 | MR. HINNEFELD: I don't I don't know I |
| 19 | guess I don't really know how that fa I'm not |
| 20 | famil that part of the procedure, sitting |
| 21 | right here, but there is a person called that. |
| 22 | But the but in terms of his specific |
| 23 | responsibilities with dose reconstruction |
| 24 | review, I don't know if they're spelled out in |
| 25 | this procedure or not 'cause the procedure more |
| | |

1 describes what is a health physicist supposed 2 to look at when they do a dose reconstruction. 3 DR. ZIEMER: And what's the last -- S-- SC&A 4 said what? 5 MS. MUNN: SC&A said that they were told to review the modified OTIB-8, and either 6 or 7, 6 7 if those documents are determined to be 8 documents reviewed as the result of this 9 review, or await workgroup instruction if 10 either 6 or 7 are to be considered new 11 documents. 12 MR. HINNEFELD: Those are the same for all the 13 DR (unintelligible). 14 MS. MUNN: Yeah, for all the -- of this entire 15 procedure, so SC&A apparently has looked at 16 this and Ostrow is accepting of the fact that 17 there are no specific responsibilities that are 18 necessary. 19 DR. ZIEMER: Or that this person's even 20 involved in the --21 DR. MAURO: Exactly --22 DR. ZIEMER: -- process. 23 DR. MAURO: -- he's out of the picture -- he's 24 out of the picture now. 25 DR. ZIEMER: Yeah. So it's a moot point.

1 MS. MUNN: Okay, closed. Next issue, number 2 three, the procedure is not clear on how the 3 cases are chosen for review. NIOSH says the 4 document was revised. Every DR is reviewed 5 according to the requirements of Section 5.1.1. Five percent of all DR reviews are selected at 6 7 random automatically by NOCTS. 8 **MR. HINNEFELD:** (Off microphone) 9 (Unintelligible) 10 MS. MUNN: And that's been accepted without 11 issue. 12 MR. HINNEFELD: See, there's no real selection 13 _ _ 14 MS. MUNN: Right, huh-uh. 15 MR. HINNEFELD: -- because they all get 16 reviewed. 17 MS. MUNN: Right. 18 MR. MARSCHKE: And five percent get the --19 DR. ZIEMER: Five percent --20 MR. MARSCHKE: -- get the random review. 21 MR. HINNEFELD: (Off microphone) Five percent 22 (unintelligible) checklist (unintelligible). 23 MS. MUNN: Okay, closed. Next issue, item 24 number four. The procedure mentions training 25 for health physics personnel reviewers, but

1 does not reference the procedure covering their 2 training process. Both NIOSH and SC&A have 3 looked at this and -- prior to the response of 4 NIOSH that says the document was reviewed --5 was revised and there are no training 6 requirements. 7 MR. HINNEFELD: Okay, now there are 8 qualification requirements to be hired. 9 Uh-huh. MS. MUNN: 10 MR. HINNEFELD: Once we have a health 11 physicist, then the process is sort of a --12 work under the direction of a more senior 13 person until you're in -- and demonstrate the 14 ability to -- to do the work on --15 independently, and then you're allowed to do 16 the work independent -- that's essentially the 17 process by which people are brought up to 18 speed. And we -- we rarely hire -- I think we 19 have hired a few people in the last year, but 20 (unintelligible) couple in the past year, but 21 it's not like we're hiring and having 22 (unintelligible) turnover and a lot of new --23 new people coming in and doing dose 24 reconstruction, but the process is not so much 25 that -- here's your training manual, do this

1 training and then you're -- then you can go do 2 dose reconstruction reviews. The -- it is here 3 -- here, start with this one, but you don't 4 approve it; you tell me what you would -- what 5 would you write on it (unintelligible) you pass 6 this on a particular finding and someone else 7 (unintelligible) kind of a (unintelligible). 8 DR. MAURO: We do it the same way. 9 MS. MUNN: So Stu, if there are no training 10 requirements in this document --11 MR. HINNEFELD: Right. 12 MS. MUNN: -- do they appear elsewhere? MR. HINNEFELD: Well, they're in the 13 14 qualification requirements for the position. 15 MS. MUNN: Qualification requirements should be 16 adequate for the job. 17 DR. ZIEMER: Okay, but why does the procedure 18 mention training? Why does the procedure 19 mention it? 20 MR. HINNEFELD: I don't think it does. 21 DR. ZIEMER: Well, it says the procedure 22 mentions training. 23 MR. HINNEFELD: It did originally. 24 DR. ZIEMER: Oh, it doesn't anymore? 25 MS. MUNN: It says the document was revised;

1 and that may have been the revision, I don't 2 know. 3 DR. ZIEMER: SC&A know the answer to that, is -4 - was --5 I'm assuming the fact that Steve DR. MAURO: agreed, he checked item --6 7 MR. MARSCHKE: Steve --8 DR. MAURO: -- Steve Ostrow. 9 MR. MARSCHKE: -- Steve -- yeah, he was given 10 the revision, too, and I'm assuming that he 11 checked as well. I should have -- I should 12 have asked Steve Ostrow to be on the phone for 13 this meeting and I forgot -- slipped my mind. 14 DR. MAURO: I can give him a call. 15 MR. MARSCHKE: I might have the phone number, 16 John. 17 DR. MAURO: I take it --18 MS. MUNN: Do we have the ability to pull up 19 the document? 20 DR. ZIEMER: So let -- well --21 MR. MARSCHKE: Yeah. 22 DR. ZIEMER: -- I -- I'm okay with it, I --23 MR. MARSCHKE: We do have the ability to pull 24 up the document. 25 DR. ZIEMER: If the document's --

1 MR. MARSCHKE: Yeah, we got a few more. We're 2 up to -- we have four or five more. 3 DR. ZIEMER: What we're saying is the document 4 doesn't re-- mention or require training. 5 MR. HINNEFELD: Yeah, it originally talked 6 about training for the health physics 7 personnel. 8 DR. ZIEMER: Right. 9 MR. HINNEFELD: And I believe that was written 10 before we did any. 11 DR. ZIEMER: And you also were telling us 12 actually there is some training that's not 13 formalized in this document --14 MR. HINNEFELD: Right. 15 DR. ZIEMER: -- so --16 MR. HINNEFELD: And in fact it is a -- it's --17 you know, sort of construction as they, you 18 know, work under the observation or, you know, 19 the guidance of somebody until you can 20 demonstrate the ability to do it, and they you 21 -- then you're allowed to do it on your own, so 22 that's the -- that's the process. I think the 23 original version -- the version of the 24 procedure that was reviewed was probably 25 written as things were starting --

MS. MUNN: Uh-huh.

| - | |
|----|---|
| 2 | MR. HINNEFELD: before I was even there |
| 3 | MS. MUNN: I think this was very early on. |
| 4 | MR. HINNEFELD: and they said well and so |
| 5 | they put these things together, envisioning |
| 6 | that what would happen, and then as people - |
| 7 | - as they 'cause there were they started |
| 8 | with what, maybe three health physicists, so as |
| 9 | they started adding staff to review these dose |
| 10 | reconstructions that were, they adopted a |
| 11 | different practice that rather than a formal |
| 12 | training package, so |
| 13 | DR. ZIEMER: Is there a final SC&A response? |
| 14 | MR. MARSCHKE: It hasn't been added at this |
| 15 | point. What we would do is |
| 16 | DR. ZIEMER: In other words, would they say yes |
| 17 | |
| 18 | MR. MARSCHKE: What what what |
| 19 | DR. ZIEMER: we have reviewed this and we |
| 20 | MR. MARSCHKE: what you have on the on |
| 21 | the on the page, we can basically take it |
| 22 | and stand upon this or or or we have not |
| 23 | added |
| 24 | DR. ZIEMER: Well, I'm wondering if there |
| 25 | should be a sentence similar to what we talked |
| | |

1 about in that other document --2 MR. HINNEFELD: Right. 3 DR. ZIEMER: -- where SC&A says we have 4 reviewed this and we agree that the procedure 5 no longer mentions --MR. MARSCHKE: You need a little bit more 6 7 explanation as to why we agree. 8 Yeah, that's what I'm asking. DR. ZIEMER: 9 Yes, I would --MR. MARSCHKE: 10 DR. ZIEMER: Something like a sentence similar 11 to what we talked about in that earlier --12 MR. MARSCHKE: Yes. 13 DR. ZIEMER: -- what -- why did you agree. 14 MS. MUNN: Right. 15 MR. MARSCHKE: Right. 16 DR. ZIEMER: We agreed because either -- either 17 it no longer mentions, if it did originally, 18 training --19 MR. MARSCHKE: Training --20 DR. ZIEMER: -- or if it does, Stu just 21 described what the training is. There -- there 22 is some training, but maybe it's not mentioned 23 here. 24 MR. MARSCHKE: Yes. 25 MS. MUNN: But the SC&A follow-up area down

1 there is probably the appropriate place to 2 close it out. Right? 3 MR. MARSCHKE: Yeah, we can put it in there. 4 DR. MAURO: I think as -- again, as a ground 5 rule, what we've been doing is sending the response to our folks that originally had the 6 7 comments, saying what do you think, and they 8 said oh, it looks okay --9 DR. ZIEMER: Yeah. 10 DR. MAURO: -- but what we need is more than 11 that. We need it looks okay because. 12 DR. ZIEMER: Yes. 13 MS. MUNN: Exactly. 14 I mean I'm -- I'm, again, DR. ZIEMER: agreeable to closing it, but the basis for the 15 16 closure is -- is not delineated. 17 MR. MARSCHKE: T believe --18 DR. ZIEMER: And I think that would be --19 DR. MAURO: Steve is calling in right now. 20 MR. MARSCHKE: Steve Ostrow is just calling in 21 so we'd be able to get his input as to why he 22 agreed. 23 DR. MAURO: But still I think we still have to 24 fill in -- fill in --25 MR. MARSCHKE: We have to -- yeah, we have to -

1 2 DR. MAURO: -- fill in the record, essentially. 3 MR. MARSCHKE: Yeah. 4 MS. MUNN: Yeah, it will. 5 DR. ZIEMER: Good. 6 Is this the kind of thing that we MS. MUNN: 7 can have another report on in September when 8 we're at Redondo Beach, or is it going to take 9 a little more --MR. MARSCHKE: Oh, I don't think --10 11 DR. ZIEMER: I'm satisfied that we -- if we 12 know how to close it, as long -- as long as they agree to put the reason in the --13 14 DR. MAURO: Uh-huh. 15 DR. ZIEMER: -- I mean if it's what he just 16 described. 17 MS. MUNN: Yeah. And I -- I'm saying that it 18 would be wise for us to take a look at their 19 resolution --20 DR. ZIEMER: Make sure that it's --21 MS. MUNN: -- to see that the wording does 22 indeed fulfill our desires. 23 MR. MARSCHKE: So I'll hold off making any 24 closing of these 37 until after the September 25 4th meeting?

1 MS. MUNN: Assuming that you'll have the 2 database filled in with the final closure 3 comments at that time. 4 MR. MARSCHKE: Yes. 5 MS. MUNN: And then -- yeah, that's what we'll 6 be looking for is --7 MR. MARSCHKE: I'll put it in the SC&A follow-8 up; we'll put some --9 MS. MUNN: Uh-huh, yeah. 10 MR. MARSCHKE: -- words to that effect. 11 MS. MUNN: Yeah, right. 12 MR. MARSCHKE: Okay. 13 MS. MUNN: And if you've got a date up there, 14 then that's the closure date for us. 15 All right, that's good for number four. The 16 next one is item number five, the procedure 17 does not reference OCAS PR-005 for basic 18 reviews or for detailed reviews. NIOSH says it 19 was revised in 2007, it's a stand-alone 20 document, PR-5 is referenced in Section 3. 21 That's adequate. Any problems with that or any 22 of the language on it? It would simply be 23 accepted as-is. 24 (No responses) 25 Closed?

| 1 | (No rogpondod) |
|----|--|
| | (No responses) |
| 2 | Closed. |
| 3 | DR. ZIEMER: Just for my understanding, what |
| 4 | would SC&A's statement be on this particular |
| 5 | case? |
| 6 | MS. MUNN: NIOSH response is adequate, accepted |
| 7 | as-is. |
| 8 | DR. MAURO: Or that we loo we I guess as |
| 9 | to the response or let the good question. |
| 10 | The document was revised on 2/1, so that was |
| 11 | quite a while ago. The question is, was our |
| 12 | response because we read the revised document |
| 13 | and see that yes, in fact it has made the |
| 14 | changes have been made and, as changed or is |
| 15 | that document is now fully responsible |
| 16 | responsive to our originally concern, or is it |
| 17 | that all we simply say was well, we saw the |
| 18 | response I mean I guess I'm not sure whether |
| 19 | we actually reviewed the new procedure. You |
| 20 | see what I'm getting at? Whe whether or not |
| 21 | our our current position |
| 22 | MR. MARSCHKE: Steve no, Steve has looked at |
| 23 | Rev. 2 of the procedure. |
| 24 | DR. MAURO: Okay, he did look at that then. |
| 25 | All right. So the word the word should be |
| | |

| 1 | we reviewed |
|----|---|
| 2 | DR. ZIEMER: We have verified that. |
| 3 | DR. MAURO: verified that this has in fact |
| 4 | occurred. Okay. |
| 5 | MR. HINNEFELD: I think the the meaning of |
| 6 | the response, if I think well, first of |
| 7 | all, I think well, part of the response is |
| 8 | okay, we added OCAS PR-5 as a reference. |
| 9 | MS. MUNN: Uh-huh. |
| 10 | MR. HINNEFELD: That's part of it. |
| 11 | MS. MUNN: Right. |
| 12 | MR. HINNEFELD: I think the other part is that |
| 13 | we don't there was no need to refer back to |
| 14 | PR-05 for the basic and detailed review because |
| 15 | the PR-7 describes to you as you do the |
| 16 | review that five percent of the time the form's |
| 17 | going to pop up and you have to complete the |
| 18 | checklist on it during your review. And so I |
| 19 | believe that's what it means by "this is a |
| 20 | stand-alone document" is that it's described |
| 21 | there, you know, the differences are described |
| 22 | there, so there's no need necessarily to talk |
| 23 | back to PR-05 for what's a detailed and what's |
| 24 | a basic review. |
| 25 | DR. MAURO: I I have to say, what I'm |
| | |

1 this is -- this is our first time through. 2 Probably we need to do a little bit more 3 writing -- not a lot more --4 MS. MUNN: Not much. 5 DR. MAURO: -- probably just a --6 DR. ZIEMER: Probably just a sentence, just a 7 sentence. 8 DR. MAURO: -- just another sentence just to 9 make sure that -- see, the way you're 10 explaining it right now, Stu, is very --11 **MR. HINNEFELD:** I think that's what it is. Now 12 I'm --13 DR. MAURO: Yeah, that would do it. 14 MR. HINNEFELD: -- I'm -- this is not very fresh in my mind --15 16 DR. MAURO: Yeah. MR. HINNEFELD: -- I don't --17 18 DR. ZIEMER: But that's why we want something 19 here, that we've --20 DR. MAURO: Yeah. 21 DR. ZIEMER: -- confirmed that this appears 22 there --23 DR. MAURO: Yes. 24 DR. ZIEMER: -- or whatever it is. 25 MS. MUNN: And that's all it needs, actually,

| 1 | to confirm that that's taken place |
|----|---|
| 2 | MR. MARSCHKE: The question |
| 3 | MS. MUNN: and we agree. |
| 4 | MR. MARSCHKE: The question I would have is why |
| 5 | did we find that it why did we feel that it |
| 6 | needed to reference PR-5 in the first place? |
| 7 | MR. HINNEFELD: It it might be that the |
| 8 | original PR-7 didn't include any particular |
| 9 | I don't know what it did. Maybe it didn't |
| 10 | include a difference it wasn't sufficiently |
| 11 | clear on the difference between a a basic |
| 12 | and a detailed or maybe it was there was no |
| 13 | instruction in PR-7 for how often you had to do |
| 14 | a detailed, or something could have been I |
| 15 | mean it could have been along those lines, but |
| 16 | I don't I don't know. |
| 17 | MR. MARSCHKE: We'll have to go back and read |
| 18 | the read our report. |
| 19 | DR. MAURO: Exactly. With with regard to |
| 20 | the first item, SC&A's original finding, that's |
| 21 | something that's easy to work with because we |
| 22 | can just go back to our report |
| 23 | DR. ZIEMER: 'Cause you have it, right. |
| 24 | DR. MAURO: we have it so we can go back |
| 25 | and you know, maybe we could have done a better |
| | |

1 job in summarizing that finding -- you know, 2 our concern and why we had that concern, so --3 DR. OSTROW: John, this is Steve Ostrow. 4 DR. MAURO: Yeah, hey, Steve, good. Thanks for 5 joining us. 6 Steve, right now we're looking at the review of 7 PR-007, item number five. 8 DR. OSTROW: Okay. 9 DR. MAURO: Okay? And if you have your 10 reports, you -- you -- right now where we are 11 is -- we're looking at our database, which I'm 12 _ _ 13 DR. OSTROW: Okay. 14 DR. MAURO: -- sure you're not looking at, but 15 in effect what it does is it says okay, our 16 original comment, your comment, in our original 17 report regarding this particular matter is 18 described and one -- in a one-liner. 19 DR. OSTROW: Uh-huh. 20 DR. MAURO: And I guess step one is when we 21 summarized, very briefly, the one-liner --22 DR. OSTROW: Yes. 23 DR. MAURO: -- did we do it justice in making 24 it --25 DR. OSTROW: Oh, okay, I see.

1 DR. MAURO: In other words, right now -- I'll 2 read the words to you. We say the procedure 3 does not reference the OCAS PR-005 for basic 4 reviews, Section 5.1.5, or the detailed 5 reviews, Section 5.1.2. DR. OSTROW: 6 Okay. 7 DR. MAURO: And I guess the first thing that 8 happened here was within what context was that 9 concern. Other words, this very brief 10 description of your finding --11 DR. OSTROW: Oh, all right. 12 DR. MAURO: -- may be a little too brief, and that's -- you know, that's more of our concern 13 14 in loading up the database. 15 MS. MUNN: The question, Steve, really was why 16 did you feel that 05 should be referenced to 17 begin with. That was the question. 18 DR. OSTROW: Well, because OCAS-7 is on dose 19 reconstruction reviews, but OCAS-5 talks about 20 the -- the conduct of a-- of assessments, the 21 basic reviews and the detailed reviews, so I thought that 07 should just reference 05. 22 23 MS. MUNN: Okay, that makes sense. 24 DR. OSTROW: I mean there's nothing profound 25 about it.

1 MS. MUNN: No, understand that. 2 DR. OSTROW: I thought it was a related 3 procedure, so this one I thought should 4 reference the other one, too. And there's no 5 deep meaning in that one. 6 MS. MUNN: Understand, okay. So -- so the 7 statement that -- that since the revision has 8 been made and the reference now appears in 9 Section 3, you've confirmed that, and that 10 therefore takes care of the -- of the issue. 11 DR. OSTROW: Yes. 12 MS. MUNN: Yeah, good. All right, that's what 13 we need to know. 14 For this one, uh-huh. Thank you. 15 DR. OSTROW: You're welcome. 16 MS. MUNN: All right, we can mark this one closed. 17 18 DR. ZIEMER: Now there's still going to be a 19 statement though. Right? 20 MS. MUNN: One more -- oh, yeah. Oh, yeah. 21 DR. MAURO: Well, we've got to load it now. 22 MS. MUNN: Yeah. Uh-huh. 23 DR. MAURO: That's part of our story. 24 MS. MUNN: Yeah, yeah. Yeah, we're -- we're 25 making sure that Steve here has plenty to do.

1 MR. MARSCHKE: Right now I'm not going to close 2 anything --3 MS. MUNN: Nope. 4 MR. MARSCHKE: -- until after -- until we get 5 these all -- all --6 MS. MUNN: Until --7 MR. MARSCHKE: -- all loaded and agreed -- and 8 wording agreed to. 9 MS. MUNN: Right. Correct. Next issue is 7-6, 10 the procedure should provide guidance on what 11 is meant by "a significant overestimate," and 12 the NIOSH response was it's been revised. The term "significant overestimate" does not appear 13 14 in the current revision. That would seem to 15 take care of the problem. Does anyone have any 16 issue with that? 17 (No responses) 18 All right. 19 DR. MAURO: Other than -- when you -- I just --20 DR. ZIEMER: And you'll state the -- exactly 21 what she said. 22 DR. MAURO: Yes, right. And Steve, just for 23 you -- now when -- when -- when you checked 24 this -- I mean I guess the last step in this, 25 did you read the revised procedure and confirm

| 1 | that those words are no longer there? |
|----|---|
| 2 | DR. OSTROW: I didn't find it. |
| 3 | DR. MAURO: Okay. You di you di wait a |
| 4 | minute, I'm sorry. You didn't find the |
| 5 | procedure? |
| 6 | DR. WADE: He didn't find the words. |
| 7 | DR. MAURO: Oh, you didn't find the |
| 8 | DR. OSTROW: I didn't find the words. |
| 9 | DR. MAURO: words, okay. Good. |
| 10 | DR. OSTROW: I read the procedure but I didn't |
| 11 | see that those words in it. |
| 12 | DR. ZIEMER: They were well-hidden this time. |
| 13 | DR. WADE: He's not saying they're not there |
| 14 | 'cause this is a lawyer we're talking about. |
| 15 | MS. MUNN: But the nice thing about electronic |
| 16 | documents is it's easy to check to see if |
| 17 | "significant overestimate" is there. |
| 18 | DR. OSTROW: Right. |
| 19 | MS. MUNN: Next item would be item number seven |
| 20 | for the same procedure, the procedure should |
| 21 | not be limited to, quote, radiological workers, |
| 22 | end quote. Response from NIOSH is the |
| 23 | procedure is not limited to radiological |
| 24 | workers. The term "radiological worker" |
| 25 | appears in the section which describes the |
| | |

1 likelihood of exposure. No issue beyond that. 2 Mr. Ostrow has accepted that, SC&A accepts it. 3 Any issue around the table here? 4 (No responses) 5 Okay. 6 That one appears to still be an DR. ZIEMER: 7 interpretation. Right? 8 DR. MAURO: I -- I'm going to have to leave 9 this to Steve. 10 DR. ZIEMER: Steve, in other words, there's --11 there's no revision or anything. You thought 12 what they said that they were limiting it to 13 radiological workers, and they're saying no, we 14 only use that term when we're talking about the 15 likelihood of exposure. 16 DR. OSTROW: That's true, and I re-read the 17 procedure and I agree. 18 DR. ZIEMER: Yeah. 19 DR. MAURO: So -- so in effect you're 20 withdrawing your comment. In other words, you 21 _ _ 22 DR. OSTROW: Yeah. DR. MAURO: -- after -- after this 23 24 clarification was made, you see that in fact it 25 wa-- it was okay as it was.

1 DR. OSTROW: That's right. 2 DR. MAURO: Okay. 3 MR. MARSCHKE: Steve, what we're going to have 4 to do, we're going to have to ask you on your -5 - for this PR-007 and PR-005 that --6 DR. OSTROW: Right. 7 MR. MARSCHKE: -- we're going to have to -- we 8 understand that you agree with the NIOSH 9 responses, but we're going to -- you're going 10 to have to add a little why do you agree --11 DR. OSTROW: Certainly. 12 MR. MARSCHKE: -- for each one of the -- each 13 one of the --14 DR. ZIEMER: Yeah. 15 MR. MARSCHKE: -- responses --DR. OSTROW: Okay, I can do that. 16 17 MR. MARSCHKE: -- so that we have it on -- on 18 record. 19 DR. OSTROW: All right. 20 MR. MARSCHKE: So -- and we can add that to the 21 database. 22 DR. OSTROW: Okay, no problem. 23 MS. MUNN: Thank you. 24 DR. WADE: And you don't have to say you're a 25 bad person in that --

| 1 | DR. OSTROW: I won't put that in. |
|----|---|
| 2 | DR. WADE: Okay. |
| 3 | MS. MUNN: The next item is PR-7-08. It is |
| 4 | suggested that the record of issues/revisions |
| 5 | provide more detailed information, and that the |
| 6 | revised sections are denoted. |
| 7 | DR. OSTROW: That was just a general comment I |
| 8 | made. It doesn't detract from the usefulness |
| 9 | of the procedure. It's just that it's not that |
| 10 | cl clear in the recommended issues and |
| 11 | revisions what exactly has been revised. |
| 12 | MS. MUNN: That's a good suggestion. |
| 13 | Historical versions are maintained. |
| 14 | DR. OSTROW: Yeah. So I suppose the answer is |
| 15 | if someone is really interested in what's |
| 16 | changed, you can look at one of the previous |
| 17 | revisions. |
| 18 | MR. HINNEFELD: We do we do try we get |
| 19 | varying levels of success in records of |
| 20 | revision page describing what changed, so we |
| 21 | understand that it's it's really helpful to |
| 22 | have a pretty good idea why was the revision |
| 23 | done and what was revised. But if you have a |
| 24 | large number of revisions, then the record of |
| 25 | revision becomes kind of tedious, or sometimes |
| | |

1 -- when you're changing so much, record of 2 revision just says "complete rewrite" --3 MS. MUNN: Yeah. 4 DR. MAURO: I've seen that. 5 MR. HINNEFELD: -- and so -- "complete 6 rewrite", so at that point it's -- it's really 7 hard to tell unless you're going to go back. 8 Remember our discussion of before DR. WADE: lunch. We had just this discussion about how 9 10 to maintain our own record of revisions. 11 MS. MUNN: Uh-huh. So that's -- response is 12 accepted and we can close that. And --13 DR. ZIEMER: Isn't -- I have a question, 14 though. Is this -- this generally applies to 15 all revisions, I quess, not just this 16 particular -- you have a section called --17 let's see, where did this arise? It was on a 18 particular page where you must have listed 19 revisions that you had made? Do you remember, 20 Steve, what --21 MR. HINNEFELD: It was a -- they re-- they reviewed Rev. 1, so --22 23 DR. OSTROW: All the procedures have a -- near 24 the beginning, a record of issue and revision, 25 so they have like Rev. 0, Rev. 1, Rev. 2,

1 whatever, and each one gives a short 2 description of what pages are affected and what 3 sections and what the changes are. I mean all 4 the procedures have that. I just noted it here 5 for this particular procedure 'cause I was reading it. Since it's a revision, it's Rev. 6 7 1, I was trying to look at the record of issue 8 and revisions to see what's changed since Rev. 9 0, and I ended up I just re-read Rev. 0, then 10 read Rev. 1 so I saw what changed. It's more 11 of a convenience issue. It's not really a -- a 12 criticism of the procedure. 13 DR. ZIEMER: Well, I -- I was just saying I 14 think it has broad ap-- applicability probably 15 to other procedures as well, and I think your 16 comment probably is even generic in that sense. 17 MS. MUNN: And was -- appears to have been 18 accepted as such by NIOSH. 19 DR. ZIEMER: That would close it. MS. MUNN: 20 Uh-huh. 21 DR. ZIEMER: I -- I don't know that you could 22 say anything more in this one, NIOSH simply 23 accepts that. 24 DR. MAURO: Yeah, in effect this was just a --25 what I -- what I'm reading there is it would be

1 helpful to all users that there -- if -- to --2 the extent to which you can make it a little 3 con-- you know, so it's -- it's not even really 4 a -- a finding. It's almost like a constructive criticism. 5 6 MS. MUNN: Yeah. 7 DR. ZIEMER: Yeah. 8 MS. MUNN: It's not even a criticism --9 DR. MAURO: It's not even a criticism. 10 MS. MUNN: -- it's just a good suggestion. 11 DR. MAURO: A suggestion. 12 MS. MUNN: And it's accepted. Next item is 13 number nine, it would be helpful to the reader 14 to include an acronym section in the 15 procedures. Response is it's a good 16 suggestion, and as a matter of fact that's 17 frequently done now, is it not? 18 MR. HINNEFELD: Yeah. Yeah, I frequently have 19 I don't know -- I don't know that this those. 20 has ever been revised to include it, but --21 this specific procedure, but it is fairly 22 common, you know, to put in an acronym. 23 MR. MARSCHKE: Steve, did -- do you recall Rev. 24 2 of the -- of -- of this procedure included an 25 acronym list?

1 DR. OSTROW: I don't think it did. I don't 2 think it did. I'd have to check it again, but 3 I don't think it did include an acronym list. 4 MR. HINNEFELD: (Off microphone) I think Rev. 2 5 was -- see, there's a little (unintelligible) 6 the (unintelligible) issue here, you know, 7 because, you know, Steve reviewed Rev. 1 and 8 then I think Rev. 2 may have come out before we 9 wrote the responses here. 10 MS. MUNN: I think so, too. 11 MR. HINNEFELD: And it would be like well, it's 12 a good suggestion. 13 DR. MAURO: Didn't catch up. 14 MR. HINNEFELD: Too bad we didn't catch up -we didn't catch it --15 16 DR. MAURO: Should have told us sooner. 17 MR. HINNEFELD: -- should have caught it; wish 18 we'd done it. 19 DR. OSTROW: Okay, I just took a look at Rev. 2 20 on my computer and it -- it does not have an 21 acronym list. 22 MS. MUNN: And it does --23 DR. ZIEMER: But you're -- Steve, you're 24 recommending closing it on the basis that NIOSH 25 agreed with you?

1 DR. OSTROW: Well, it's not a -- I mean this is 2 not like a crucial issue. 3 DR. ZIEMER: No. 4 DR. OSTROW: I mean I wouldn't expect them to 5 issue another revision just to put an acronym 6 list in. 7 DR. ZIEMER: No, no, no. 8 DR. OSTROW: This is like in the future they --9 it would be a good idea to include acronyms. 10 MS. MUNN: And for the most part, they do. 11 DR. WADE: Uh-huh. Make a note. 12 The next issue is -- when I MS. MUNN: Yes. 13 just do "next issue," I get TIB-9, which is 14 transferred to global issues. 15 MR. HINNEFELD: Where do you want to go? 16 DR. ZIEMER: What -- what was the one we just 17 closed? 18 MS. MUNN: We just closed PR-7, item nine. 19 **DR. ZIEMER:** Oh, 7-9. MS. MUNN: And before we get to the next one on 20 21 the printed list that we have here -- just 22 checking, since I have everything that is 23 considered open, this is one of those 24 interesting things. We have TIB-9-01, which is 25 transferred to global issues, and I believe

1 we've agreed to leave them in transferred state 2 until it's closed out somewhere else. That was 3 our -- our agreement. So in the follow-up down 4 here, perhaps it would be wise to indicate that 5 the workgroup has determined that transferred 6 items will be retained in the database until 7 they're closed by the transferring -- by the transferred agency --8 9 DR. MAURO: Question --10 MS. MUNN: -- or group. 11 DR. MAURO: -- it's one thing to say yes, this 12 issue now is -- is in the hands of OTIB-9 13 procedure review group, or you know, that group 14 that's looking at -- or the folks that are concerned with OTIB-9. Now does -- does that 15 16 mean that this stays in abeyance until that 17 issue is -- I gue-- I'm -- I'm a little --18 other words -- let me see if I can 19 (unintelligible). This item here, one, has 20 been --21 MS. MUNN: We're --22 DR. MAURO: No, no, I'm sorry. 23 MS. MUNN: -- not looking at this. 24 DR. MAURO: No -- no, I -- O--It's not -- this is one that isn't 25 MS. MUNN:

on here.

1

2 DR. MAURO: Okay, O-- okay, OTIB-09, I know --3 I think I know what that is, and it -- right, 4 the ingestion intakes. 5 MS. MUNN: Right. 6 DR. MAURO: Now, I believe that's a global 7 issue. 8 MS. MUNN: Yeah. Yes, yes, yes. 9 DR. MAURO: Oh, you -- see it is glo-- good. 10 MS. MUNN: I see it is global. 11 DR. MAURO: Now the que-- and -- and it's been 12 identified as transferred. 13 MS. MUNN: Uh-huh. 14 DR. MAURO: Okay. And it stays in that mode? 15 MS. MUNN: We -- it stays in that mode until 16 global issues have addressed this --17 DR. MAURO: Got it. 18 MS. MUNN: -- so that we don't lose track of 19 it. 20 MR. HINNEFELD: Now there is no global issues 21 working group. 22 MS. MUNN: Well, we -- we --23 DR. WADE: Jim Neton -- Jim Neton was one of 24 the bodies that we decided you could assign 25 things to, so this is Jim Neton's global issues

1 _ _ 2 DR. MAURO: It's in it already. I know Jim 3 gives a summary of his globals. 4 DR. WADE: Right, so that's one of the elements 5 we can track. Now he has to do his work. 6 MS. MUNN: Yes. 7 DR. MAURO: Then that's -- by the way, that's -8 - that's also a -- in this particular case, 9 it's an easy one because there already exists -10 11 MS. MUNN: Yes. 12 DR. MAURO: -- in Jim's global scientific 13 investigations a body that's looking at this 14 particular issue. 15 MS. MUNN: Yes. 16 DR. MAURO: Now the -- is it pos-- I quess --17 have we ever run across a situation where we 18 feel that this is a generic issue that has 19 global implications, but there is no global 20 place for it to be handled, but there prob--21 there should be one? 22 MS. MUNN: The global place is Jim. 23 DR. MAURO: Okay -- okay, so in effect we could 24 transfer something, even though it doesn't have 25 a home yet.

1 MS. MUNN: That's true. 2 DR. WADE: But the Board would have to 3 recommend to NIOSH --4 DR. MAURO: Okay. 5 DR. WADE: -- that it develop a global issue 6 around that. 7 MS. MUNN: Uh-huh. 8 DR. MAURO: Okay. 9 MS. MUNN: The next one that comes up is one 10 that we have on our list, TIB-10-01. This is 11 the best estimate external dose reconstruction for glovebox workers. The finding was the TIB 12 lacks transparency. The radioactive source is 13 14 not identified. Neither exact dimensions nor 15 location are given, nor is the thickness of the 16 walls presented. NIOSH response is good 17 comment, information will be added as an 18 appendix to the report. However, since the 19 ratio is completely a function of geometry and 20 not of radionuclide or material thickness, specification of radionuclide and material does 21 22 not add real value. If a photon or neutron 23 makes it through the shield, it will hit the 24 upper torso approximately two times less 25 intensely than the lower torso. And it's shown

1 as being in abeyance, then Anigstein concurs 2 with NIOSH's proposal to specify the organs in 3 a revised TIB. Is that your understanding as 4 well, Stu? 5 MR. HINNEFELD: Yes. DR. MAURO: I got a phone call from -- I --6 7 Bob's probably not on the line because he's on 8 travel somewhere else, but he called me yester-9 - last night or yesterday sometime. He 10 mentioned something that may be -- or -- he 11 says he agrees completely that the adjustment 12 factors -- this had to do with the glovebox, 13 film badge worn on the lapel versus the dose, 14 let's say to the bladder. 15 And he agrees completely that the adjustment 16 factor -- the factor of two is based entirely 17 on geometry, so this business of the thickness 18 of the walls of the glovebox and all that 19 really are not important. But then he said but he recently was looking at another OTIB where 20 21 it became apparent to him that well, there is 22 another factor at play here that should be 23 brought up before the workgroup, and that is 24 the angle of incidence. So unfortunately when 25 he reviewed this, he -- he did not evalu-- this

| 1 | particular procedure, he did not look into the |
|----|---|
| 2 | issue of angle of incidence, and the way he |
| 3 | explained it was he did he did not have the |
| 4 | software which is a MCNP version, fairly |
| 5 | sophisticated to look into that matter, and |
| 6 | but subsequent to reviewing this he now has |
| 7 | access to that and he ran it to see what |
| 8 | happens if you factor in not only the geometry |
| 9 | but the fact that the film badge the angle |
| 10 | is coming in at the edge of the film badge as |
| 11 | opposed to perpendicular, and he said that |
| 12 | might have another factor of two effect. So he |
| 13 | asked me to pass on to the workgroup the fact |
| 14 | that there is an angle of incidence concern |
| 15 | here that should have been raised at the time |
| 16 | of the review, but at the time of the review he |
| 17 | did not have the tools that allowed him to |
| 18 | evaluate that. So Steve, did you talk to |
| 19 | Bob about this |
| 20 | MR. MARSCHKE: No. |
| 21 | MR. HINNEFELD: He's got tha he's got it |
| 22 | written in number five. |
| 23 | DR. MAURO: Oh, so it's written on a little |
| 24 | further down? |
| 25 | MR. HINNEFELD: Yeah. |
| | |

1 DR. MAURO: Oh, okay, so -- never mind. Sounds 2 like we've got it. 3 MR. HINNEFELD: It's here. 4 DR. MAURO: It's here. 5 MR. HINNEFELD: It's here in the information provided. I -- I don't really have a response. 6 7 I'll have to get some -- you know, got it and 8 so --9 DR. MAURO: Okay. 10 MR. HINNEFELD: -- may not have had it -- if 11 I'd had it for a few days (unintelligible) have 12 a response. We'll have to go back and -- and 13 consider that. So in general, though, we 14 believe there are probably some revisions --15 some clarifying that should be done here as 16 well anyway. Regardless of where we end up on 17 this issue, we believe there are some 18 clarifying things and so we expect there will 19 be a revision, and then -- is there -- if this 20 -- this is a substantive change that we adopt -21 - Bob's got another one here, too, number three 22 -- these are substantive comments that would affect the numbers --23 24 DR. MAURO: Yes. 25 MR. HINNEFELD: -- and so in other words

1 there's going to be a more lengthy resolution 2 of that --3 DR. MAURO: Yes. 4 MR. HINNEFELD: -- and -- than what we would --5 you know, that -- that may take some -- some 6 back and forth, you know, as would a number of 7 (unintelligible). 8 MS. MUNN: It appears this status changes from 9 open to in progress. And their -- the 10 workgroup directive for this date would be for 11 SC&A and NIOSH to identify what changes will be 12 made and what TIB is affected. 13 The next issue then would be TIB-10-2, which 14 appears to be essentially the same thing. The 15 finding was lower torso organs not specified. 16 Response is the lower torso organs are 17 generally considered to be those that would be 18 below the stomach. The TIB will be revised to 19 clarify which organs are considered to be in 20 the lower torso. So again, the status changes 21 to in progress, and the direction is for NIOSH 22 to continue with the specification of organs. 23 Next issue is TIB-10-3, correction factors do 24 not represent worst case assumptions -- was the 25 finding. The response was correction factors

1 do not need to be worst case scenarios. The 2 uncertainty identified by the lognormal 3 distribution incorporates worst cast scenarios 4 and gives the worst case scenario the proper 5 weight. Most recent response from SC&A says 6 they would concur with the use of a 7 distribution only if the TIB listed the 95th 8 percentile correction factor and recommended 9 its use in the DR. 10 MR. HINNEFELD: Okay, now this -- this may be a 11 philosophical --DR. MAURO: 12 Yes. MR. HINNEFELD: -- it's just philosophical. 13 14 MS. MUNN: Yes. MR. HINNEFELD: And -- and I think Jim would be 15 16 (unintelligible), so maybe whoever Jim 17 designates. 18 MS. MUNN: I would think so. 19 MR. HINNEFELD: From our standpoint, you know, 20 as a general rule we believe a distribution is 21 a satisfactory representation of -- of a 22 quantity, and it's not automatically necessary 23 or appropriate to choose the 95th percentile 24 every time you generate a distribution value to 25 say well, we're doing that -- that has to be

done in order to be claimant-favorable. 1 We 2 think the use of the distribution itself in 3 occasion can be favorable -- can be 4 sufficiently favorable or is the appropriate 5 distribution. Remember, a claimant-favorable decision is -- is selected when you have 6 7 alternative explanations that are equally 8 plausible and you can't really sort them out, 9 so you make the claimant-favorable choice. In 10 a situation where you have a more plausible 11 explanation, there's no need to choose a 12 somewhat -- a -- a plausible, but less-13 plausible, explanation that is more claimant 14 favorable. So the -- the language about 15 claimant favorability in -- probably in the 16 preamble to one of the rules, has to do when 17 there are alternative explanations that are 18 essentially of equal probability. Because the 19 other language in there talks about the weight 20 of the evidence, and you develop a dose 21 reconstruction that incorporates the weight of 22 the evidence. And in those cases where you 23 don't have a -- a weight of the evidence, a 24 convincing weight of the evidence, then in 25 those cases then you would choose the more

| 1 | claimant-favorable option when you have equally |
|----|---|
| 2 | weighted probabilities equally equally |
| 3 | plausible approaches. So just laying that out |
| 4 | there as kind of background for where I think |
| 5 | the discussion would start on our side, and it |
| 6 | could be that Jim will read this and say well, |
| 7 | Bob's right. He might, 'cause I'm I'm |
| 8 | pretty sure I'm sure Jim has not seen this. |
| 9 | Or but it may we may get into a |
| 10 | discussion along those lines. |
| 11 | DR. MAURO: And I I think this is a very |
| 12 | important philosophical because what this |
| 13 | means is when we do when a dose |
| 14 | reconstruction's being done and there is some |
| 15 | uncertainty, and say well, this guy's dose |
| 16 | could be anywhere between here and here, and we |
| 17 | really can't do much better than that, and the |
| 18 | geometric mean of betw is here's the value |
| 19 | so here's the value we're going to use with |
| 20 | this uncertainty, so therefore you're or do |
| 21 | you say no, it's between here and here, we're |
| 22 | going to use a fixed value and assign the upper |
| 23 | val value, and I agree. I think it's it's |
| 24 | a judgment a policy decision that will have |
| 25 | a big effect on the outcome, and I don't and |
| | |

1 I know in some venues when we entered into this 2 discussion, it usually went toward the fact 3 that well, we have a building and someone's 4 working in the building, and we know that some 5 rooms have higher concentrations than others. But we also know that this worker -- his job 6 7 was to work in all the different places, he 8 didn't stay in one buil-- one room. He worked 9 in a lot of different rooms. So for him, the 10 median of the -- of the entire building is 11 probably the right number for him. But for this other quy, let's say we don't really know 12 where he worked, but we do know by and large 13 14 that -- that peop-- there are people working 15 one location, and we don't know really what 16 location that was. In those circumstances, 17 this has been something that we all -- we did 18 discuss. We assigned the guy to the wor-- to 19 the 95th percentile location --20 MR. HINNEFELD: Yes. 21 DR. MAURO: -- 'cause if -- 'cause we don't 22 know any better. 23 MR. HINNEFELD: Right. 24 DR. MAURO: Now we're talking about something 25 similar where we're saying well, we -- when we

modeled this guy's dose, there's enough 1 2 uncertainty on how you go about the mathematics 3 of the process that we know we could put it --4 it's between here and here. The question is 5 what do you -- what do you -- what do you -and right now you're picking the full 6 7 distribution. 8 MR. HINNEFELD: For this -- this TIB came out 9 originally using, I believe, the dis-- the full 10 distribution --11 DR. MAURO: Yeah, yeah. 12 MR. HINNEFELD: -- of -- I guess it's a 13 (unintelligible) factor (unintelligible). 14 DR. MAURO: And -- and I think this is a -- a 15 needed and healthy discussion with -- to -- you 16 know, right now I -- I don't know what the 17 right answer is but I think that this is 18 something that needs to be discussed. 19 MR. HINNEFELD: Yeah, and I think that we'll 20 have -- we'll have to bring a few people to the 21 discussion, but that'll be part of this. 22 MS. MUNN: So our status changes from open to 23 in progress. The SC&A comment that is shown on 24 the printout that we have will be incorporated 25 into the database with today's date, and the

1 workgroup's directive will be for SC&A and 2 NIOSH to discuss this and attempt to reach a 3 resolution. 4 DR. MAURO: I have a feeling it's going to be 5 regulatory-driven. There's probably going to 6 be some language in the regulations that will 7 help us make a judgment where we should come 8 down on this. 9 MR. HINNEFELD: Might be. Might be, and I'm --10 I'm just laying out there, you know, a thought 11 process and I don't know, it may not even be. 12 Next item is TIB-10, item four. MS. MUNN: 13 Finding was analysis is needlessly complex. 14 NIOSH response is noted, no revision is 15 proposed. Anigstein accepts the fact that 16 they've taken note of it, and that's -- was 17 more of an observation rather than -- that 18 should change to closed, and the wording that's 19 identified here should be incorporated into the 20 database. 21 Item five --22 DR. ZIEMER: Well, wait. So on this one what 23 did NIOSH actually do? 24 MS. MUNN: Nothing. 25 Meaning wha -- in the original -MR. HINNEFELD:

1 2 DR. ZIEMER: It's needless complex. 3 MR. HINNEFELD: Needless complex. 4 DR. ZIEMER: I mean did you simplify the 5 analysis or --6 MR. HINNEFELD: No. 7 DR. ZIEMER: -- is it still needlessly complex? MR. HINNEFELD: Yeah. Yeah, some -- some of 8 9 (unintelligible) complexity. DR. ZIEMER: Well, maybe it's not needless 10 11 then. Maybe it's --12 MR. HINNEFELD: I have to go back on --DR. ZIEMER: I mean -- I mean did --13 14 MR. HINNEFELD: -- when the original report was 15 - -DR. ZIEMER: -- did Steve think there was a --16 17 MR. HINNEFELD: This was Bob. 18 DR. ZIEMER: -- some way to do it -- this is 19 Bob's? 20 MS. MUNN: Yeah, Anigstein. 21 MR. HINNEFELD: He probably felt like you could 22 have done this simpler. 23 MS. MUNN: Yeah. 24 MR. HINNEFELD: You said -- you were a lot more 25 complicated in your description of this than

1 you need to be. You know, what you -- what you 2 actually do there is not complicated, but it 3 sounds a lot more complicated. 4 DR. ZIEMER: Well, when it said you'd taken 5 note of the findings and were aware that -- you 6 think it's needlessly complex? 7 MR. HINNEFELD: Yeah. I mean --8 Well -- well, he said it was MS. MUNN: 9 actually more of an observation. He identified 10 it more of an observation than a finding, in 11 any case. 12 MR. HINNEFELD: And I'm not familiar enough with which calculation they're talking about. 13 14 It's -- it had to do with -- this -- this whole 15 thing has to do with how you calculate the 16 adjustment to a --17 DR. ZIEMER: Well, I mean if --18 MR. HINNEFELD: -- based on the geometry. 19 DR. ZIEMER: -- if you had an easier way to do 20 it, then it would be fine to know that, but --21 DR. MAURO: I mean if I recall, this is -- what 22 I -- what I believe it is, there's this factor 23 of two adjustment. In the end you have to into 24 further calculations --25 DR. ZIEMER: Yeah.

1 DR. MAURO: -- crunch, crunch, crunch, crunch numbers and model it and model the different 2 3 geometries. In the end, we both come down to 4 the same place, notwithstanding the angle of 5 incidence issue but so -- just the issue 6 related to geometry and -- the inverse square 7 law -- you know what I think he was saying? I 8 think that when all's said and done, all you 9 have to do is apply the inverse square law. 10 MR. HINNEFELD: Yeah. 11 DR. MAURO: Why are we going through all these 12 calculations? Except when you start to enter into the question of angle of incidence on the 13 14 badge, that might have been the basis for his -15 16 MR. HINNEFELD: It could very well have been. 17 I mean we went -- I think -- I think Bob used 18 MCNP on this. Right? 19 DR. MAURO: He probably did. 20 MR. HINNEFELD: And we did a different model. 21 DR. MAURO: Attila. 22 MR. HINNEFELD: Yes, we used Attila, and got 23 about the same number. 24 DR. MAURO: And we got the same number. 25 MR. HINNEFELD: And so we said well, hey,

1 that's pretty good. You know, we got 2 independent confirmation using two different 3 platforms, that sounds pretty good. DR. MAURO: It's funny that he would say it's 4 5 needlessly complex because you don't get more 6 complicated than MCNP. MR. HINNEFELD: MCNP, right. We chose Attila 7 8 'cause it was simpler. 9 MS. MUNN: But this may be closed also in light 10 of the fact that the author of the finding is 11 preparing to -- in another item, is preparing to complicate the issue even further, adding in 12 13 yet more --14 MR. HINNEFELD: I guess we could presume --15 MS. MUNN: -- calculations must be desig--16 MR. HINNEFELD: -- that that's necessary 17 complication. 18 MS. MUNN: Yes. 19 DR. MAURO: Yes, I think that --20 DR. ZIEMER: Yeah, so he's not saying you get 21 the wrong result or anything like that, he's 22 just saying that --23 DR. MAURO: Easier way to do it. 24 MR. HINNEFELD: You know, it could -- it could 25 very well be with the description of what was

done --

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2 MS. MUNN: Yes. 3 MR. HINNEFELD: -- as well. I mean, God help 4 us, we don't necessarily write that clearly all 5 the time. 6 No, you don't. MS. MUNN: 7 MR. HINNEFELD: And so it just be with the 8 description of how the -- how the HP went about 9 describing what was done. I -- I don't 10 remember. If we pulled up the report, we 11 probably (unintelligible) clear. You know, if 12 we -- if we pulled up SC&A's report, it would 13 probably be relatively clear. 14 DR. ZIEMER: Okay. 15 MR. HINNEFELD: Most of the time they are. 16 MS. MUNN: Can we just accept this? 17 DR. ZIEMER: Yeah, it's kind of a non-finding. 18 MS. MUNN: Yeah, it is a non-finding to begin 19 with. Let's accept it as closed, incorporate 20 the language that's been provided for us, 21 including specifically that it's more of an 22 observation than a finding at the outset. 23 And in view of the fact that TIB-10 has four --24 five more items on it and one or two of them is 25 likely to be a little long-winded, let's take a

1 15-minute break here to see if we can get out -2 - ourselves in proper condition for another 3 onslaught for a couple of hours. 4 **DR. WADE:** Okay. We're going to take a break for 15 minutes. We'll be back at about 20 5 6 minutes of 3:00. We're not going to break the 7 line, we're just going to put the phone on 8 mute. 9 (Whereupon, a recess was taken from 2:25 p.m. 10 to 2:40 p.m.) 11 DR. WADE: Okay, this is the workgroup 12 conference room and we're about to go back into 13 session. 14 MS. MUNN: You set, Ray? Our next issue -we're still on TIB-10. This is item five. 15 We 16 question the design of the analysis. Ιt 17 compares the particle flux over locations on 18 the torso rather than modeling the variation of 19 dosimeter response with location. NIOSH's 20 response was the dosimeter effectively measures 21 particle flux. Through the use of filters, the 22 film density is correlated to exposure/dose. 23 According to the review, SC&A has conducted the 24 same analysis using Hp(10) dose rates and MCNP-25 5. In SC&A analysis similar correction factors

1 as indicated in the TIB were obtained. Modem 2 dosimeters were calibrated to measure Hp(10). 3 Thus we believe the additional work of modeling 4 the individual dosimeters is not warranted. 5 The response that we have now from SC&A is we 6 disagree with the NIOSH statement that 7 dosimeters effectively measure particle flux. 8 The conversion of particle flux to dose rate 9 depends on the type of particle, the energy and 10 the angle of incidence. The SC&A analysis of 11 TIB-10 did not address the angular dependence 12 of Hp(10). In our later review of TIB-13, 13 which employs analytical methods similar to 14 those of TIB-10, we did incorporate the angular 15 dependence and found a large discrepancy with 16 the NIOSH results. Finally, although we agree 17 that modern dosimeters are calibrated to 18 measure Hp(10), the correction factors may be 19 used in conjunction with early dosimeters, 20 which were not calibrated in the same manner. 21 So, clearly this is not going to be accepted. 22 There's a difference of opinion with respect to 23 more than just the angle of incidence here, it 24 would appear. Is there anything we can do in 25 this meeting to move this along, or is this

1 going to be something we simply have to kick 2 back to NIOSH for response and technical 3 resolution? 4 MR. HINNEFELD: I think you at least need a 5 response. 6 Oh, yeah. MS. MUNN: 7 MR. HINNEFELD: The -- before you do anything -8 - in progress means we've talked about it, so I 9 think that's the appropriate status 10 (unintelligible) it to, but the -- I think the 11 basis of the issue is our model did not put a 12 dosimeter at various places across a person's 13 torso and see what kind of response you get 14 (unintelligible) dosimeter. It just looked at 15 the particle (unintelligible) across various --16 across the torso. And our position would be 17 that well, the badges are good -- you know, 18 particle (unintelligible) is a good indicator 19 it's essentially -- for a given spectrum, 20 particle (unintelligible) is proportional to 21 the dose. So -- so our position was look, you 22 -- you've got -- you know, any kind of question 23 about is the badge reading the -- the radiation 24 correctly is apart from the actual glovebox 25 part of this question, and so -- but is the

1 badge reading the dose correctly is sort of the 2 -- the -- the additional thing. It's relevant, 3 certainly, and it's what Bob has raised here 4 because the angular dependence would be a big 5 piece of is the badge reading the dose appro-appropriately. So angular -- I knew angular 6 7 dependence had come up somewhere else. Ι 8 didn't remember it was TIB-13, but I knew it 9 had come up somewhere, and so there'll have to 10 be a resolution effort for angular dependence 11 that would relate to this as well as the other 12 place it came up. 13 MS. MUNN: No, I didn't --14 MR. HINNEFELD: I don't know if --I didn't --15 MS. MUNN: 16 MR. HINNEFELD: -- we can go any further today. 17 MS. MUNN: I didn't remember where it came up, 18 either, but it's -- it's not a new -- it's 19 nothing new on the table. We already have it. 20 If no one has any objection, we will move this 21 to in progress rather than open. We will 22 incorporate the words from the SC&A response 23 into the follow-up section, and the working 24 group's directive will be for NIOSH to 25 communicate with SC&A to attempt resolution of

1 this. The next issue is TIB-10, item six. 2 3 MR. MARSCHKE: Excuse me, Wanda. When you say 4 communicate, do you mean like a -- a telephone 5 conference or do you mean --6 MS. MUNN: Yes. 7 MR. MARSCHKE: -- e-mails back and forth or --8 I mean telephone conferences --MS. MUNN: 9 MR. MARSCHKE: Telephone conference? 10 MS. MUNN: -- and e-mails, whatever is 11 required. 12 MR. MARSCHKE: All -- whatever is needed? Whatever's needed. 13 14 MS. MUNN: Yes, whatever is needed. MR. HINNEFELD: Well, I think the first point 15 16 would probably be for us -- if we have a 17 tentative position to write, we could write 18 that --19 MS. MUNN: It would be helpful. 20 MR. HINNEFELD: -- to help get started. 21 MS. MUNN: Yeah, helpful. MR. MARSCHKE: And all that communication 22 23 should be -- again, coming out of the --24 MR. HINNEFELD: Should we go through the 25 workgroup on that or should we just go directly

1 to each other? 2 MS. MUNN: I think you should go directly to 3 each other until you have at least a position. MR. HINNEFELD: Anything -- anything we write, 4 5 we'll share with the --6 MS. MUNN: Yes. 7 MR. HINNEFELD: -- share with the subcommittee. 8 Yeah, we'd appreciate that. MS. MUNN: 9 MR. GIBSON: And the technical calls, I think 10 Mark likes to be on those a lot of times, too. 11 MS. MUNN: Yeah, he's always --12 MR. HINNEFELD: Yeah, we always -- we always 13 let the -- the subcommittee or workgroup know 14 when one gets scheduled. 15 **MS. MUNN:** Yep, just keep us in the loop. TIB-16 10, item six, we question the assumptions made 17 concerning the glovebox model; e.g., wall 18 thickness, Lexan windows, et cetera. And NIOSH 19 response was the model was to evaluate a 20 typical glovebox in a claimant-neutral or 21 favorable manner. As illustrated in the TIB, 22 glovebox designs vary from facility to facility 23 and may have steel-faced plates that greatly 24 reduce the photon flux to the lower torso 25 compared to where the badge would be worn on

1 the lapel. Since the SC&A MCNP model resulted 2 in a similar correction factor using a 3 different glovebox design, assumptions about 4 glovebox model, wall thickness, et cetera, do 5 not seem to be a serious issue. 6 SC&A's comment is the use of glovebox model 7 with walls over four centimeters thick does not 8 represent any actual glovebox design, past or 9 present. The thickness of the glovebox may well affect Hp(10) if angle of dependence were 10 11 considered. 12 Does this not appear to be essentially the same 13 type of concern as item five? 14 **MR. HINNEFELD:** Yeah, I think it'll be wrapped 15 in with that. I mean our position is that we 16 didn't pick an actual glovebox and model it 17 because there's a wide variety in gloveboxes 18 that were used throughout the complex and we 19 wanted to have a document that was applicable 20 and favorable, you know, so it could be used 21 everywhere, rather than trying to do one for a 22 redesigned glovebox and trying to figure out 23 what design a person used. So that was the 24 approach here, so we didn't really try to make 25 it look like a glovebox, and the fact that the

design we chose doesn't fit any real gloveboxes 1 2 kind of doesn't really matter to us. That 3 there were no gloveboxes that truly looked like 4 that, to us that doesn't matter. But the other 5 question about does that -- you know, is there some design feature there or something about it 6 7 that will affect the -- the issue we already 8 know we're going to have to work it, which is 9 the angle of dependence --10 MS. MUNN: Angle of dependence. 11 MR. HINNEFELD: -- then, you know, we can go 12 into that as well. 13 MS. MUNN: Is there a possibility that we can 14 combine these two? 15 MR. HINNEFELD: I have -- I don't know, I think 16 you'd have to get with Bob on that --17 (unintelligible) anybody else could comment on 18 that. 19 MR. MARSCHKE: I think I'm going to talk to Bob 20 before I agree to combining them or, you know, 21 make this addressed in number five or something 22 like that, and --23 MS. MUNN: Would you, off-line, communicate 24 with --25 MR. MARSCHKE: Yes, I will.

1 MS. MUNN: -- Bob about that --2 MR. MARSCHKE: And I will e-mail the --3 MS. MUNN: -- and ask him --4 MR. MARSCHKE: -- workgroup the --MS. MUNN: -- ask him if, in his view, it's --5 it's reasonable to combine them. 6 MR. MARSCHKE: Reasonable to combine them, and 7 8 if answering one -- answering five would also 9 answer six, I'll -- I'll talk to him and see. 10 MS. MUNN: We'll talk about that at the -- at 11 Redondo Beach. 12 MR. MARSCHKE: At Redondo Beach we can put that 13 in. 14 MS. MUNN: Very good. All right. Yes, Paul? DR. ZIEMER: I have a question on this 15 16 particular one. Stu, do you recall -- did --17 did NIOSH assume a four-inch -- four-centimeter 18 thick glovebox --19 MR. HINNEFELD: I don't recall. 20 DR. ZIEMER: No, it's still pretty thick --21 MR. HINNEFELD: Pretty thick. 22 DR. ZIEMER: -- depending on -- unless it's --23 unless it's, you know, intentionally made to 24 shield in some way. Sometimes gloveboxes 25 (unintelligible) some shielding, particularly

1 in nuclear (unintelligible). Otherwise, that's 2 -- that is pretty thick. 3 MR. HINNEFELD: Yeah. I don't know if it doe--I quess it does, I don't know. 4 5 DR. ZIEMER: And also in connection with this 6 and the previous one, are assumptions made 7 about these source geometry -- I mean typical 8 glovebox, the source is pretty well spread out. 9 It's not just one thing. Right? 10 MR. HINNEFELD: My -- I don't know much about 11 typical glovebox work. I think that that's the 12 case many times, and there may be other 13 applications where there's (unintelligible) 14 work on at a time. I -- I really don't know. MS. MUNN: Where there's what? I'm sorry. 15 16 DR. ZIEMER: Well --17 MR. HINNEFELD: Many sources in the glovebox, 18 or is there a particular item that's worked on 19 and then removed and another one -- one single 20 item brought in. 21 MS. MUNN: Oh, that depends on what's going on 22 at any given site. 23 **DR. ZIEMER:** Right, and they're -- and they are 24 often not point sources, they're --25 MS. MUNN: No, they're multiple.

| 1 | DR. ZIEMER: they may yeah, multiple, and |
|----|---|
| 2 | also there's a lot of scattering going on, so - |
| 3 | - |
| 4 | MS. MUNN: Yeah, yeah. |
| 5 | DR. ZIEMER: I'm not sure well, I'm just |
| 6 | |
| 7 | MS. MUNN: No, when when you get into |
| 8 | production facilities where all the remote |
| 9 | handling's taking place, you've got you've |
| 10 | got a whole glovebox full of differing often |
| 11 | even differing isotopes, so okay, action on |
| 12 | it is to change |
| 13 | DR. ZIEMER: Same as the previous, I suppose. |
| 14 | MR. HINNEFELD: Probably the same same |
| 15 | action as the previous. Whether they |
| 16 | whether it's the same whether it's the same |
| 17 | finding and the same resolution, or whether |
| 18 | they're two separate resolution discussions, |
| 19 | but it's still the same action. |
| 20 | MS. MUNN: Still the same action. We change it |
| 21 | to to in progress rather than open. And |
| 22 | Steve's going to let us know what Bob thinks |
| 23 | with respect to combining them. |
| 24 | Next item is 07. The finding was we question |
| 25 | the use of an anatomical illustration of a |
| | |

1 human torso rather than the ORNL-developed ICRP 2 reference man-based anthropomorphic phantoms. 3 And NIOSH response -- again, since the 4 correction factor based on the Hp(10) dose rate 5 calculated by SC&A MCNP model -- which, by 6 definition, is the dose ten millimeters into 7 tissue -- was the same as the correction factor 8 calculated using the anatomical illustration, we do not feel the additional work needed to 9 10 model the ICRP-referenced man is warranted. 11 And Anigstein concurs and recommends that it be 12 closed. 13 Any problem with any of that? 14 (No responses) 15 Hearing none, we will change the -- the status 16 to closed and the SC&A follow-up will be the 17 wording identified here on Steve's list, that 18 SC&A concurs with NIOSH response, closed. 19 MR. MARSCHKE: So that one I can actually make 20 the closed change to the database. 21 MS. MUNN: Huh? 22 MR. MARSCHKE: That one we can make the change 23 to the database --24 MS. MUNN: I see no reason why not. 25 **MR. MARSCHKE:** -- without any further approval

from the workgroup.

| 2 | MS. MUNN: I see no reason why not, unless |
|----|---|
| 3 | there's objection raised, which I don't hear. |
| 4 | DR. ZIEMER: I'm trying to remember if Hp(10) |
| 5 | is really a 10 millimeters. It's actually |
| 6 | pretty shallow. Isn't the the standard |
| 7 | sphere, isn't it a 20-centimeter sphere |
| 8 | could you have someone check on that, Stu? |
| 9 | MR. HINNEFELD: For which, the definition of |
| 10 | Hp(10)? |
| 11 | DR. ZIEMER: Yeah. |
| 12 | MR. HINNEFELD: Hp(10) |
| 13 | MS. MUNN: Ten mil ten millimeters? |
| 14 | DR. ZIEMER: I think it's centimeters. I I |
| 15 | think I think it's the center of a 20- |
| 16 | centimeter sphere, not a 20-millimeter sphere, |
| 17 | which is a |
| 18 | MR. HINNEFELD: So you're saying Hp being the |
| 19 | center of a 20 |
| 20 | MS. THOMAS: (Off microphone) (Unintelligible) |
| 21 | MR. HINNEFELD: Well, no, I know what you're |
| 22 | talking about. You're talking about some |
| 23 | quantity's measured at the center and it's |
| 24 | the highest point |
| 25 | DR. ZIEMER: It's the highest point |
| | |

1 MR. HINNEFELD: -- the highest point in a 20-2 centi-- in a sphere. 3 DR. ZIEMER: But the distance is taken to the -4 - to the -- the distance is taken to the ten-5 centimeter point. You know what I'm saying? 6 MR. HINNEFELD: I know what you're saying. 7 DR. ZIEMER: The -- the depth of the maximum is 8 never specified. It's the center of the sphere 9 that's specified. 10 MR. HINNEFELD: I know you're -- I know you're 11 talking about how --12 DR. ZIEMER: So if -- if your -- if your source is here and this is the body, you claim that 13 14 the distance is this distance, it's the -- I think it's the center of a 20-centimeter 15 16 sphere, it's the maximum dose in there, 17 wherever that occurs. It's somewhere between 18 .7 millimeters and 20, I think, and I -- I 19 don't think it's the (unintelligible), ten 20 centi-- millimeters of tissue. I think that's 21 wrong. I noticed that before, but... 22 MS. MUNN: There'll be a brief pause while we 23 see if we can get yet one more health physics 24 expert to weigh in on exactly what Hp(10) does. 25 MR. GIBSON: (Unintelligible) one of our HP

1 experts not here. 2 MS. MUNN: Exactly. 3 DR. ZIEMER: Well, in fact, the -- the 4 definition of deep dose is never at a specified 5 distance (unintelligible) shallow dose is --6 MS. MUNN: Yeah, shallow dose is --7 DR. ZIEMER: -- so that's -- that's wrong. 8 (Pause) 9 MR. HINNEFELD: Okay, Brant thought it was the 10 dose at ten millimeters. 11 (Pause) 12 Just to warn the Chair, I may be interrupted in 13 a little bit by a phone call. 14 MS. MUNN: Oh, that's -- that's quite all 15 That's no interruption, it's right. 16 fulfillment of our destiny here. So we will 17 come back to item seven when we get feedback 18 from yet another HP expert. 19 We'll move on in the meantime to the next 20 issue, which is item eight, the use of the 21 Attila software is questioned. And the 22 response is Attila was used out of convenience. 23 Apparently we also ran MCNPX models and 24 obtained similar results. Attila allows for an 25 easy grasp of representation of the particle

| 1 | flux/dose rate that we feel is more informative |
|----|---|
| 2 | to the casual reader and is therefore more |
| 3 | transparent than MCNP. In addition, since the |
| 4 | SC&A review comments indicate concurrence with |
| 5 | the correction factor based on SC&A MCNP-5 |
| 6 | model, we feel this comment is simply a matter |
| 7 | of preference. |
| 8 | The response that came back is Anigstein |
| 9 | concurs with NIOSH response, but awaits a |
| 10 | presentation of the confirming MCNPX |
| 11 | calculations in the revised TIB. Is that in |
| 12 | the offing, Stu? |
| 13 | MR. HINNEFELD: No, I'd like to ask SC&A, and I |
| 14 | know you will have to go to Bob, for a little |
| 15 | additional explanation here. Is he expecting |
| 16 | us to write a revision that includes an MCNP |
| 17 | version of the same calculations? |
| 18 | MR. MARSCHKE: I think what he would be looking |
| 19 | I think if we can delate delete in the |
| 20 | revised TIB, from from his response, maybe |
| 21 | we could take a look I mean it says in your |
| 22 | response that you've made the MCNPX runs. We - |
| 23 | - do you have that a document, quality |
| 24 | assurance packet or something, that that |
| 25 | compares the results of your MCNPX runs to your |
| | |

| 1 | Attila runs? If we could look at that |
|----|---|
| 2 | comparison, I don't know that it has to be |
| 3 | revision to the TIB, but maybe just a a |
| 4 | you know, some kind of a a calculation |
| 5 | package or something that that shows the |
| 6 | comparison, then we would be happy. |
| 7 | MS. MUNN: Is that reasonable? |
| 8 | MR. HINNEFELD: I believe so. I thought that |
| 9 | Bob ran MCNP and got similar results, but I |
| 10 | could I could be mistaken. |
| 11 | MS. MUNN: Maybe he's just wanting to get it on |
| 12 | the record here. So at this moment I'm marking |
| 13 | out "in the revised TIB" from the SC&A |
| 14 | response, and we're going to hold this in |
| 15 | abeyance on and we're going to add SC&A's |
| 16 | follow-up with these words, absent "in the |
| 17 | revised TIB", and will expect a NIOSH follow-up |
| 18 | at some time after the first week in September. |
| 19 | Acceptable? |
| 20 | (No responses) |
| 21 | Hearing no problem with that, we'll move |
| 22 | forward. |
| 23 | Next item is TIB-10-9, the use of Rocky Flats |
| 24 | to validate the model is questionable. Rocky |
| 25 | Flats data is for glovebox and non-glovebox |
| | |

| 1 | workers. Information is lacking regarding |
|----|---|
| 2 | radiation sources, et cetera. NIOSH's response |
| 3 | is RFP data was used only as proof of principle |
| 4 | for the use of Attila. It was added as an |
| 5 | appendix for this reason. It is not used in |
| 6 | the justification of glovebox factor in the |
| 7 | TIB. Also the RFP data used was from glovebox |
| 8 | workers. |
| 9 | And the response from SC&A says on page 11 of |
| 10 | the TIB it was stated the claims involve |
| 11 | glovebox and non-glovebox workers. If only |
| 12 | data on glovebox workers were used in the |
| 13 | validation, this should be stated in the |
| 14 | revised TIB. |
| 15 | MR. HINNEFELD: Okay. We'll have to provide |
| 16 | another response to that. It could be as |
| 17 | simple as saying we've already promised to |
| 18 | revise this TIB from like one and two, so it |
| 19 | could be as simple as saying we'll include the |
| 20 | that statement you know, take this |
| 21 | statement out, in quotes, and put in the |
| 22 | statement that the claims used were just from |
| 23 | glovebox workers, if that's the case. |
| 24 | MS. MUNN: All right. |
| 25 | MR. HINNEFELD: And that may be as simple as |
| | |

1 doing that. We may not need any kind of 2 technical resolution. 3 MS. MUNN: Excellent. 4 MR. HINNEFELD: And if that's not the case, 5 I've got to figure out what we meant by our 6 response. 7 MS. MUNN: We'll call it in progress. This 8 wording should go in as an SC&A follow-up, and 9 we'll anticipate a NIOSH response when 10 available. 11 Do we hear an answer? 12 MR. HINNEFELD: Yeah. MS. MUNN: We'll hold up here a minute. 13 14 (Pause) 15 Okay. What he found was each -MR. HINNEFELD: 16 - this is from ICRU-43, Hp(D), the individual 17 dose equivalent penetrating at depth D is the 18 dose equivalent in soft tissue below a 19 specified point on the body at a depth D that 20 is appropriate for strongly penetrating 21 radiation, and recommended depth is ten 22 millimeters for personal monitoring. So Hp(D) 23 is a general term for dose in depth --24 DR. ZIEMER: It's kind of a minimum of depth --25 minimum depth.

1 MR. HINNEFELD: -- and -- and then -- and you 2 specify the depth --3 DR. ZIEMER: Yeah. 4 **MR. HINNEFELD:** -- Hp(7) or Hp(10) -- Hp(0.07), 5 so that's the -- that's the -- the definition 6 of Hp(D), and then Hp(10)'s definition derives 7 from that. He's looking some more at the ICRU 8 sphere about dose --9 DR. ZIEMER: This is probably then a general --10 it's like a generic -- he specified ten as --11 MS. MUNN: Uh-huh. 12 MR. HINNEFELD: Yeah, ten is what's recommended 13 for radiation protection. Hp(D) is the generic 14 _ _ 15 DR. ZIEMER: Yeah. 16 MR. HINNEFELD: -- for whatever depth you want 17 to -- want to do -- whatever depth you are --18 you're interested in the tissue. 19 MR. SIEBERT: Hey, Stu, this is Scott. 20 MR. HINNEFELD: Yes. 21 MR. SIEBERT: I seem to recall that the sphere issue is when you're doing $H^*(10)$ or whatever 22 23 depth. 24 MR. HINNEFELD: Okay. MR. SIEBERT: Which is a slightly different 25

1 concept. To tell you the truth, I'm -- I'm 2 flipping through to see if I can find it, too, 3 but that -- that seems to be the difference. MR. HINNEFELD: Okay. All righty. Thanks. 4 5 Well, let us know if you get anything, Scott. 6 MR. SIEBERT: Sure. 7 DR. ZIEMER: I don't -- I don't think it'll 8 affect the finding. 9 No, it's just --MR. HINNEFELD: 10 MS. MUNN: I don't think so, either. 11 MR. HINNEFELD: -- it's just a comment in the 12 response. 13 DR. ZIEMER: And they have apparently used that 14 correctly. There is a -- obviously is an --15 Hp(10) is -- is one specific --16 MR. HINNEFELD: One specific depth. 17 DR. ZIEMER: -- depth, yeah. And whatever --18 MS. MUNN: Which is ten millimeters. 19 DR. ZIEMER: -- depth you chose, the -- the 20 issue doesn't change. 21 MR. HINNEFELD: Right, right. 22 MS. MUNN: Yeah, it's moot for this purpose. 23 DR. ZIEMER: Yeah, moot for this purpose. 24 Thank you. 25 MS. MUNN: Now we encounter -- we -- that

completes TIB-10, and we now encounter one of 1 2 those things which is going to require some 3 definition I think from the workgroup. When I click to the next issue, the next issue that 4 5 comes up is a closed one, TIB-11-01, and it is 6 one of the original findings regarding lung 7 dose conversion factor for thorium -- thoron. 8 NIOSH provide further clarification of how the 9 values of Table 1 of the TIB were derived. We 10 were not able to reproduce the values of Table 11 1, even using the same assumptions as the ones 12 provided in the document. NIOSH replies in the course of evaluating this 13 14 finding and revising TIB-11 to include progeny 15 of Rn-219, NIOSH has discovered mathematical 16 mistakes that caused the values in Table 1 to 17 be erroneously high. NIOSH will revise the 18 document, correcting the Table 1 values, and 19 will provide the supporting calculations. 20 Now this shows closed, but I see nothing on my 21 screen which gives us any of the additional 22 verbiage that we were just talking about 23 earlier substantiating that those calculations 24 have appeared, that they've been done, that --25 MR. MARSCHKE: Yes, I bel-- I believe they

1 have. That is the case, they have appeared. Ι 2 believe Stu gave them to -- to us and we sent 3 them down to Joyce and she looked at them, and she concurred with the -- the NIOSH revised 4 5 calculations. And we have to -- I have to take 6 the action item to fill in the -- that informa-7 8 MS. MUNN: Yes, yes. 9 MR. MARSCHKE: -- to provide that information 10 into the database. 11 MS. MUNN: Yes. Would you, please --12 MR. MARSCHKE: Yes, I will. 13 MS. MUNN: -- Steve? All right. Thank you. 14 'Cause that's -- if we're going to be thorough in this business of -- of how it's closed and 15 16 by whom, under what circumstances, then we have 17 to do this. 18 And the next issue that comes up is another 19 closed one from the same TIB, 11, that is 20 essentially the same situation. SCA doesn't 21 agree with the statement this causes lead-212 22 to produce less lung (unintelligible) dose per 23 unit, et cetera. And we have a response from 24 NIOSH, which appears to be responsive and --25 and just fine, referencing the mathematical

1 errors from before. But again I'm assuming 2 that the conclusion of this and the reason for 3 its closure is the same as item one, but --4 MR. MARSCHKE: Yes, I would -- I believe that's 5 the case. MS. MUNN: So we would hope that you also have 6 7 the action to fill in that group as well. 8 The next one is -- that comes up is TIB-4, item 9 12 shows it's transferred to global issues, and 10 -- as of October of 2007, so this will remain 11 as it is. We agreed that we would leave these 12 transferred items reading just exactly that way 13 until something happens with global issues. 14 MR. MARSCHKE: (Off microphone) Prior issues 15 (unintelligible)? 16 MS. MUNN: This is the same TIB, different 17 finding, same resolution, a number of issues 18 under TIB-4, 16, 17, 18, 19 -- hold on -- up to 19 19 we're all reading transferred into glo-- no 20 - -21 MR. MARSCHKE: (Off microphone) Should be 22 (unintelligible) --23 MS. MUNN: -- 04-18 is -- transferred, it says 24 review of OTIB-9 -- oh, no, we're going to have 25 to -- we're going to have to have follow-ups to

| 1 | several of these OTIB-14s, it looks like. |
|----|---|
| 2 | OTIB-4 is okay, but when we get to item 14 of |
| 3 | OTIB-4, the status is transferred to OTIB-53. |
| 4 | Now what we'll have to have in order to make |
| 5 | this into a closed item is to see that transfer |
| 6 | go into OTIB-53 and have the resolution of it |
| 7 | there. Correct? |
| 8 | DR. ZIEMER: These aren't listed on their sheet |
| 9 | |
| 10 | MS. MUNN: No, no. |
| 11 | MR. MARSCHKE: No, I only looked at the open |
| 12 | it this only addresses the ones that were |
| 13 | open. |
| 14 | MS. MUNN: Yeah, I asked Steve for the open |
| 15 | items and that's what he gave me. So I'm |
| 16 | I'm doubling our pleasure and extending our |
| 17 | scope considerably by doing what I'm doing |
| 18 | here, but if we if we're going to be |
| 19 | consistent in the way we approach these things, |
| 20 | then we do have to review at least one time |
| 21 | we have to go through these items that we have |
| 22 | closed or transferred and identify how we are |
| 23 | going to do them. Before we discuss that any |
| 24 | further, Steve Stu, you have something else |
| 25 | you wanted to |
| | |

1 MR. HINNEFELD: Yes, Brant called me back on 2 the issue we were talking about a while ago, 3 and he found the quantity dose equivalent 4 index, which is the maximum dose equivalent in 5 the ICRU sphere standard at the point of space 6 to which the quantity is assigned. So it's 7 each --8 MS. MUNN: So we're okay? 9 DR. ZIEMER: Yeah. 10 MR. HINNEFELD: Yes. 11 MS. MUNN: Still does not affect what we're 12 doing here. 13 So I would call your attention now to an item 14 that's not on Steve's list because it is not an 15 open item, TIB-4, item 14 shows as transferred 16 and review OTIB-53. 17 MR. MARSCHKE: My first question, Wanda, would 18 be do we -- are we -- is OTIB-53 a procedure 19 that we have been chartered to review? 20 MR. HINNEFELD: OTIB-53's not published yet. 21 MR. MARSCHKE: Then I quess we have not done a 22 review on it. 23 MS. MUNN: That's -- I'm struggling with 24 exactly -- determining whether or not any 25 additional information needs to be on this at

1 this particular time. Perhaps not. There's no 2 way that we can flag this as something we need 3 to look at following the release of OTIB-53. 4 We'll just have to --5 DR. WADE: I don't know, does the Chair of the 6 workgroup keep a little list of potential 7 procedures for review? 8 MS. MUNN: She has not. And OTIB-53 will, 9 however, be of sufficient magnitude that I feel 10 fairly certain it will come before this 11 workgroup. 12 DR. WADE: I would suggest then that SC&A 13 normally would keep a list of items that 14 potentially would need to be reviewed, so I 15 would ask SC&A to make sure that OTIB-53 is on 16 their list. John Mauro would normally come to 17 the... 18 MR. HINNEFELD: We can -- if it helps, we can 19 send a list of procedures, TIBs and Technical 20 Basis Documents that are published, and then 21 from that you would, you know, subtract 22 anything that's been reviewed and then see 23 what's --24 DR. ZIEMER: What it looks like. 25 MR. HINNEFELD: -- see.

| 1 | DR. WADE: I think when the workgroup is |
|----|---|
| 2 | considering its next assignments to SC&A |
| 3 | appropriate, as long as we have a way to |
| 4 | realize that that part of the workgroup's |
| 5 | unfinished business is OTIB-53 |
| 6 | MR. HINNEFELD: Right. |
| 7 | DR. WADE: and SC&A can provide that. |
| 8 | MS. MUNN: I am more concerned with what's |
| 9 | under development that we do not currently have |
| 10 | on our list than what we do have on the list. |
| 11 | We we can seek out the the list |
| 12 | DR. WADE: Whenever you want it, Stu can |
| 13 | provide it. |
| 14 | MS. MUNN: almost anywhere. |
| 15 | MR. HINNEFELD: I can send you the list of |
| 16 | published. Under development, I'll have I - |
| 17 | - I'll have to get with the contractor. I mean |
| 18 | I can get just put my hands on this list |
| 19 | that's out there, that's published. And there |
| 20 | are a number, like coworker pop you know, |
| 21 | coworker studies, coworker TIBs, things like |
| 22 | that |
| 23 | MS. MUNN: Yeah. |
| 24 | MR. HINNEFELD: that are pretty technical |
| 25 | analyses |
| | |

| 1 | MS. MUNN: They are. |
|----|---|
| 2 | MR. HINNEFELD: so there's a |
| 3 | (unintelligible) out there in the already |
| 4 | published realm. Other than TIB-53, what's |
| 5 | coming, that would have I'd (unintelligible) |
| 6 | to just (unintelligible) the contractor. I |
| 7 | have no way of knowing that for sure. |
| 8 | MS. MUNN: I'm just I'm just concerned about |
| 9 | this reference to something that we're doing in |
| 10 | the future. As long as it's transferred to |
| 11 | something that is already done or to global |
| 12 | issues, we have a handle to hang our hat on. |
| 13 | But when we're looking at something that's |
| 14 | still under development, I'm searching for an |
| 15 | expedient method for us to track it here |
| 16 | without interfering with the business of of |
| 17 | NIOSH's day-to-day requirements. |
| 18 | DR. WADE: Well, you'd have to have some way of |
| 19 | flagging it |
| 20 | MS. MUNN: Yes. |
| 21 | DR. WADE: there, or an independent list is |
| 22 | kept. |
| 23 | MR. HINNEFELD: Or you could if you want to |
| 24 | keep it on the you've still got to worry |
| 25 | about this list, you could change the status |
| | |

back to in progress.

| - | |
|----|---|
| 2 | DR. WADE: Probably be better. |
| 3 | MR. HINNEFELD: If you just change the status |
| 4 | back to in progress |
| 5 | DR. WADE: Then it keeps things |
| 6 | MR. HINNEFELD: it's on the things the |
| 7 | list of things we have to finish. And when we |
| 8 | get to this point we'll see oh, okay, that's |
| 9 | how we're going to finish it. |
| 10 | MS. THOMAS: Just leave it as transferred in |
| 11 | reports you know, search for the |
| 12 | transferred, because didn't didn't you say |
| 13 | earlier that you're going to when you |
| 14 | transfer it to something else it'll be an open |
| 15 | item under that new procedure? |
| 16 | MS. MUNN: Yes, we did. |
| 17 | MS. THOMAS: So your transfer is really your |
| 18 | flag your transferred status is your flag. |
| 19 | MR. MARSCHKE: Right now I'm not sure when we |
| 20 | print out if we have any report that will |
| 21 | print out except for the we don't have |
| 22 | any summary report that will print out the fact |
| 23 | that it's been transferred and the the |
| 24 | review in OTIB-53, that that informa both |
| 25 | those pieces of information. We'd be able to |
| | |

1 print out the fact that it's been transferred. 2 We'd be able to sort on the fact that it's been 3 transferred. But we'll just -- you know, we'll have this whole group of -- of -- of issues 4 5 that have been transferred. We won't know 6 where they've been transferred to. We would 7 have to come up with a new report form or 8 something to -- to -- to include that 9 additional bit of information associated with 10 transfers. 11 MS. MUNN: Well, it appears, though, that --12 you know, transferred is going to be one of 13 those items that we will continue to check, as 14 we do open and in abeyance and in progress. 15 MR. MARSCHKE: Yes. 16 MS. MUNN: We'll cons-- we're going to consider 17 that as one of the forms of open items. And 18 when they've been transferred to something that 19 is clearly another procedure, then we can -- as 20 a matter of routine process in this group -- do 21 that. I had not considered that in the past, 22 but that's one of the reasons for this run-23 through, is to identify future process. 24 MR. MARSCHKE: I don't think there's all that 25 many ones that got transferred, so I don't --

1 MS. MUNN: No. 2 MR. MARSCHKE: -- I don't think we can -- you 3 know, I think we can be able to run through it 4 _ _ 5 I think we can do that --MS. MUNN: 6 MR. MARSCHKE: -- rather quickly. 7 MS. MUNN: -- fairly easily. 8 MR. MARSCHKE: Yes. 9 MS. MUNN: Yeah. 10 MR. MARSCHKE: So maybe --11 MS. MUNN: I don't believe it's going to be a 12 burden. 13 MR. MARSCHKE: So maybe the best thing is -- to 14 do is to do nothing at this --I think so, just adjust in -- in our 15 MS. MUNN: 16 own heads the fact that when we are looking at 17 open items, those open items will include for 18 us transferred. 19 MR. MARSCHKE: Yes. 20 MS. MUNN: And from time to time we will review 21 the transferred items to see what progress is 22 being made. It's just a matter of how you 23 think about the tools you have to --24 DR. WADE: He has a double-check -- I used to 25 always keep a running list of procedures that

1 were indicated to be reviewed so that when we 2 chartered SC&A with the next round, we started 3 with that list. John Mauro does the same 4 thing. 5 MR. MARSCHKE: We will -- we will --6 MS. MUNN: Yes, he does. 7 MR. MARSCHKE: -- from now on make sure that --8 that way that we -- we -- I'm not aware that 9 we're doing that at this point. Maybe John is. 10 But I'll make sure when I get back that -- that 11 somebody, either John or myself, will maintain 12 such a list. 13 DR. WADE: 'Cause in the course of a Board 14 deliberation you'd hear two or three procedures 15 that the Board would say we want to review 16 that, and we would collect that up for the next 17 charter. 18 MS. MUNN: I think that's workable. 19 DR. WADE: Yes. 20 MS. MUNN: We'll just continue with our --21 leading up to the next issue, which is another 22 transferred, OTIB-53, no problem. We've 23 resolved how we're going to deal with that. 24 Here's one that's transferred to review of 25 OTIB-9. Again, as long as we know what we're -

1 - dealing with it. 2 Here is OTIB-4, item 17, that says addressed in 3 finding, PROC-61-04. So there's no action for 4 us there. That's essentially closed for us. 5 Eighteen is closed with adequate information. 6 Nineteen is transferred to global issues. We 7 know how we're dealing with those. 8 Item 20 is closed. All right, adequate 9 information, addressed in finding 05. 10 Next one -- ah, should that be addressed in 11 finding or should that be transferred? 12 MR. HINNEFELD: Which one are you talking 13 about? 14 MS. MUNN: 04-21, OTIB-4, item 21. Its status 15 is reported as addressed in finding. 16 MR. MARSCHKE: It should be in OTIB-4 -- it 17 should be -- oh, I think what this is saying is 18 that this is identical to or sufficiently 19 similar to issue five. 20 MS. MUNN: Well, we said we'd transfer it over 21 there. 22 MR. MARSCHKE: Oh, and we said -- on four --23 and on issue five we said we were transferring 24 it to 53. 25 MS. MUNN: Yes, which wasn't done yet, but

1 OTIB-4 is done, and so I'm -- I'm saying this 2 addressed in finding should be, in my mind, 3 closed because we've -- once we assure 4 ourselves that it's been transferred to four --5 **DR. WADE:** And addressed. 6 MS. MUNN: -- and addressed there -- no. DR. WADE: The key thing -- it says SC&A look 7 8 to see that it's been addressed in... 9 MR. HINNEFELD: Well, five -- 4-5 hasn't been 10 resolved yet --11 DR. WADE: So it's --12 MR. HINNEFELD: -- it's been -- it's been 13 transferred to 53 --14 MS. MUNN: Yeah. 15 MR. HINNEFELD: -- and so this -- you know, 16 this allows you to track it. I mean you've got 17 to do a two-step track to find it but I mean it 18 I mean allows you to track it the way it is. 19 the alternative is to say transferred to 53, 20 but I think this is better. This is more 21 definitive in terms of really knowing what's 22 going on. 23 MS. MUNN: Addressed in finding -- it's then 24 closed, I guess -- if we accept addressed in 25 finding as being a closed item. That appears

| 1 | to be the logical thing at this in this |
|--|--|
| 2 | case. We'll see what happens as we go on down |
| 3 | the list. |
| 4 | The next item that comes up is OTIB-11-01, |
| 5 | closed, says okay, we have a reason for |
| 6 | having closed it. We recommended it, it's |
| 7 | closed. |
| 8 | 11-02 was more of that same discussion, I think |
| 9 | all that tritium business. |
| 10 | OTIB-12-01, SC&A submitted a white paper |
| 11 | discussing OTIB-12's finding. Is this one of |
| 12 | those is this |
| 13 | MR. HINNEFELD: I think this is where we are |
| | |
| 14 | holding open yeah a comment about the |
| 14 15 | holding open yeah a comment about the derivation of this correction factor, and |
| | |
| 15 | derivation of this correction factor, and |
| 15 16 | derivation of this correction factor, and that's where we're holding this open. My |
| 15 16 17 | derivation of this correction factor, and that's where we're holding this open. My recollection is that the original findings in |
| 15 16 17 18 | derivation of this correction factor, and that's where we're holding this open. My recollection is that the original findings in TIB-12 in OTIB-12 did not speak to whether |
| 15 16 17 18 19 | derivation of this correction factor, and that's where we're holding this open. My recollection is that the original findings in TIB-12 in OTIB-12 did not speak to whether those correction factors were correctly derived |
| 15 16 17 18 19 20 | derivation of this correction factor, and that's where we're holding this open. My recollection is that the original findings in TIB-12 in OTIB-12 did not speak to whether those correction factors were correctly derived from (unintelligible), and that after we had |
| 15 16 17 18 19 20 21 | derivation of this correction factor, and that's where we're holding this open. My recollection is that the original findings in TIB-12 in OTIB-12 did not speak to whether those correction factors were correctly derived from (unintelligible), and that after we had done some other you know, some of our other |
| 15 16 17 18 19 20 21 22 | derivation of this correction factor, and that's where we're holding this open. My recollection is that the original findings in TIB-12 in OTIB-12 did not speak to whether those correction factors were correctly derived from (unintelligible), and that after we had done some other you know, some of our other responses and SC&A looked at the revisions or |
| 15 16 17 18 19 20 21 22 23 | derivation of this correction factor, and that's where we're holding this open. My recollection is that the original findings in TIB-12 in OTIB-12 did not speak to whether those correction factors were correctly derived from (unintelligible), and that after we had done some other you know, some of our other responses and SC&A looked at the revisions or whatever was done on OTIB-12 in response to the |

1 did -- calculations you used to generate the dose correc-- correction factors in IG-1. 2 3 MS. MUNN: Then --4 MR. HINNEFELD: Is this where we're tracking 5 Am I off-base on this? that? I don't know. It may be that we 6 MS. MUNN: 7 don't have an accurate listing of the finding. 8 This doesn't appear to be a finding to me. 9 MR. HINNEFELD: Yeah. 10 MR. MARSCHKE: A couple of other -- yeah, 11 there's a couple of other statements there. Т 12 mean if you look on the bottom -- if you click, 13 there's a couple more -- additional things that 14 were said. 15 MS. THOMAS: And there's been a whi-- I have in 16 my notes, too, there's been a white paper. 17 MS. MUNN: Yeah, discussing the findings, but -18 - but the thing that I'm concerned about was 19 the finding itself. Do we -- I don't suppose 20 we still have Kathy on the line. Kathy, are 21 you there? 22 (No responses) 23 I wouldn't be, if I were Kathy. But --24 MR. HINNEFELD: If you want to excuse me for a 25 minute I'll see if I have something so you can

| 1 | see it at the same time I do. |
|----|--|
| 2 | MS. MUNN: Is this one of those ideal times |
| 3 | where the white paper should be shown as a |
| 4 | related link? |
| 5 | MR. HINNEFELD: Yeah. If I'm not mistaken, I |
| 6 | don't have anything convenient. I could find |
| 7 | it, but it would take a long time. |
| 8 | It would no, I mean I'll be able to find it, |
| 9 | but it's going to take a long time for me to |
| 10 | search 'cause the retrieval is so slow back to |
| 11 | the system. So if if I'll after we |
| 12 | get to a break or something, if you want to go |
| 13 | ahead and have another break, or at the end, |
| 14 | I'll go back and verify this. But my underst |
| 15 | my recollection is I know we have in front of |
| 16 | us a task to provide additional technical |
| 17 | support for the dose correction factors, |
| 18 | external dose DCFs, that are in IG-1. And if |
| 19 | I'm not mistaken, it came up in this context, |
| 20 | that there were originally some findings on |
| 21 | on this OTIB-12, and as during the |
| 22 | resolution of those findings SC&A it was Bob |
| 23 | Anigstein said wait a minute, these this |
| 24 | DCFs, we have a problem with how what you |
| 25 | used how you generated the DCFs, these |
| | |

| 1 | triangular distribution DCFs. |
|----|---|
| 2 | MS. MUNN: Uh-huh. |
| 3 | MR. HINNEFELD: And so our action now is to |
| 4 | come back with additional technical support for |
| 5 | that and this has been around for a couple |
| 6 | of meetings. This is not a Johnny-come-lately. |
| 7 | MS. MUNN: No, it isn't. |
| 8 | MR. HINNEFELD: It's been around for a while. |
| 9 | MS. MUNN: No, it it says, though the |
| 10 | workgroup directive says that we were to report |
| 11 | back to the workgroup on December 11th, and I |
| 12 | don't know what happened on December 11th, |
| 13 | whether that was on |
| 14 | MR. MARSCHKE: Yeah, there's another |
| 15 | MS. MUNN: my scope or not. |
| 16 | MR. MARSCHKE: Look at it again, Stu, there's |
| 17 | something |
| 18 | MR. HINNEFELD: Another one after this no? |
| 19 | MR. MARSCHKE: It says December 11th, no? |
| 20 | MS. MUNN: No. |
| 21 | MS. THOMAS: (Off microphone) There's another - |
| 22 | - it's ORAUT Procedure 6 (unintelligible) |
| 23 | procedure and in that follow-up action |
| 24 | (unintelligible) Revision 1 to Procedure 6 is |
| 25 | (unintelligible) proton (unintelligible) the |
| | |

1 dose reconstructor to (unintelligible), but IG-2 1 hasn't been modified, so that one can't be 3 closed, it's in abeyance. I don't know exactly 4 what (unintelligible) --5 MR. HINNEFELD: No. MS. THOMAS: -- that one to OTIB-12 is the same 6 7 (unintelligible). 8 MR. HINNEFELD: As I -- my recollection is that 9 OTIB-12 was were the DCFs correctly prepared. 10 You know, were they -- were they generated 11 correctly. Triangular distributions for DCFs, were those really generated correctly. I'm 12 13 almost sure this is what we're tracking. 14 MS. MUNN: Let the Chair take the prerogative 15 here of asking SC&A and NIOSH to confer on this 16 particular item, which has several apparent 17 administrative issues associated with it. The 18 first is, in the view of the Chair, this is not 19 a finding. If there's a finding here, let's 20 try to identify precisely what the finding is. 21 And if no response is required, then what are 22 we tracking? We need to have further data with 23 respect to what NIOSH's response was requested 24 to be last December, and apparently there is a 25 white paper from SC&A that's out there that

1 needs to be put in the new related link bin and 2 clickable here, so there's several things that 3 appear to be remiss with this particular item. Would NIOSH and SC&A both take the action to 4 5 communicate with one another about this and try 6 to see if we can have a cleaner feel for what 7 this item is and why we are tracking it? Can 8 do? 9 MR. HINNEFELD: Yeah. 10 MR. MARSCHKE: Yes. 11 MS. MUNN: Okay. No point in trying to resolve 12 it here. It takes a lot of going back and 13 forth. 14 Next thing that comes up for me is OTIB-14-01. 15 There's agreement. No direction from us. This 16 is one of those things that went to OTIB-52. Ι 17 think that's correctly identified at this 18 moment. 19 OTIB-17-01 --20 MR. MARSCHKE: We need to add a issue to OTIB-21 52 to receive -- receive this. 22 MS. MUNN: Yes. 23 **MR. MARSCHKE:** Is that correct? 24 MS. MUNN: That's correct, it needs to be 25 transferred into -- you need to have a

transferred tracking item.

| - | |
|----|--|
| 2 | MR. MARSCHKE: And then when we talk about our |
| 3 | OTIB-52 responses and and everything, we |
| 4 | need to make sure that we did in fact that |
| 5 | this has also been addressed |
| 6 | MS. MUNN: Yes. |
| 7 | MR. MARSCHKE: in in in 52, I guess. |
| 8 | MS. MUNN: That's correct. That's what |
| 9 | MR. HINNEFELD: Well, yeah, I think you're |
| 10 | right, but I think that you you want to be a |
| 11 | little careful about assuming that this |
| 12 | particular finding this can be written right |
| 13 | into OTIB-52 because if you read it, it says |
| 14 | you know, first of all, we're talking about a |
| 15 | TIB that about assigning an environmental |
| 16 | dose to people |
| 17 | MS. MUNN: Uh-huh. |
| 18 | MR. HINNEFELD: who were monitored |
| 19 | MS. MUNN: Uh-huh. |
| 20 | MR. HINNEFELD: but not exposed. And the |
| 21 | and the finding is an admonition to be careful |
| 22 | when you do that about construction workers |
| 23 | because there were sites where construction |
| 24 | workers were not monitored when they should |
| 25 | have been. |
| | |

MS. MUNN: Uh-huh.

MR. HINNEFELD: Which is really the intent of OTIB-52 --

MS. MUNN: Right.

1

2

3

4

5 MR. HINNEFELD: -- and the construction worker 6 approach. And so the -- the actual existence 7 of OTIB-52 may be sufficient to answer this 8 finding. Now we may know more when we go back 9 and read the actual report and the full text of 10 the finding, but it just seems to be right now 11 an admonition that's saying, you know, you 12 can't assume the same thing about construction 13 workers that you can assume about the -- the 14 main -- the principal contractors, the 15 operating contractor staff in terms of their --16 their monitoring status. And like that -- that 17 agreement, our agreement with that finding is 18 the whole reason why OTIB-52 was written. 19 MR. MARSCHKE: And I think maybe words to that 20 effect is way -- the way that this answer --21 this issue gets resolved. 22 MR. HINNEFELD: Right. 23 MR. MARSCHKE: Basically it's just -- at this 24 point all's (sic) we have to do is add some 25 words to that effect, that OTIB-52 was -- the

1 intent was to really --2 MR. HINNEFELD: Yeah. 3 MR. MARSCHKE: -- address this --4 MR. HINNEFELD: Right. 5 MR. MARSCHKE: -- this exact issue. MR. HINNEFELD: Right. 6 7 MR. MARSCHKE: And so there's no -- not spe--8 not anything specific in OTIB-52, it's O-- it's 9 just the fact that the procedure itself --10 MR. HINNEFELD: Yeah. 11 MR. MARSCHKE: -- addresses the issue, so --12 and -- and maybe we can craft some words to 13 that effect and -- and then come back and close 14 this out. 15 MS. MUNN: That would be very nice, and it 16 shouldn't take very many words on this --17 that's the intent of OTIB-52 and every -- we've 18 -- it's been done. 19 The next issue that comes up is 17-01, 20 dosimetry data, (unintelligible). The working 21 group found NIOSH's response acceptable and 22 closed this item. That appears to be an 23 appropriate closure, with adequate information 24 in here. 25 The next is item two of 17, working group

| 1 | accepted, closed, fine. |
|----|---|
| 2 | The next one is 03, NIOSH and ORAU disagree |
| 3 | with this position, consideration of geometry. |
| 4 | I cannot make my screen show me the rest of |
| 5 | that comment at the bottom. Issue was |
| 6 | discussed in OTIB discussed in the DOE |
| 7 | (unintelligible) and is incumbent on DR staff |
| 8 | to analyze and discuss the potential for |
| 9 | overestimating or underestimating electron dose |
| 10 | with respect to (unintelligible). In addition, |
| 11 | ORAU TIB-17 recommends a favorable dose |
| 12 | correction factor of 1.0 for application of |
| 13 | measured electron dose to the skin. So this is |
| 14 | outstanding. It's not on our list, but it |
| 15 | appears to be still open. There does not seem |
| 16 | to be an agreement, and there's no |
| 17 | recommendation from the working group. |
| 18 | MR. HINNEFELD: If I'm |
| 19 | MS. MUNN: Well |
| 20 | MR. HINNEFELD: If I understand this finding, |
| 21 | it's that of just because you have a shallow |
| 22 | dose measured by a person's dosimeter, that may |
| 23 | not be sufficient because there are chances |
| 24 | opportunities for heart hot particle deposi- |
| 25 | - well, hot particles specifically for skin |
| | |

| 1 | skin contamination that the badge would not |
|----|---|
| 2 | measure but would, you know, add to the dose to |
| 3 | an individual. So that, as I understand, is |
| 4 | the nature of this. And as a matter of |
| 5 | practice, we have not postulated or speculated |
| 6 | the occurrence of a skin contamination absent |
| 7 | evidence to the contrary, and the reason being |
| 8 | that there's there's nowhere to stop, you |
| 9 | know. |
| 10 | MS. MUNN: Yeah. Yeah. |
| 11 | MR. HINNEFELD: If you're going to postulate |
| 12 | skin contamination without evidence, then you |
| 13 | might as well postulate an infinite skin |
| 14 | contamination in terms of, you know, |
| 15 | integration of of level and and time, if |
| 16 | you're going to do that. |
| 17 | MS. MUNN: We have too many situations where |
| 18 | we're already postulating possibilities for |
| 19 | which we have no evidence. Let's not add to |
| 20 | it. |
| 21 | MR. HINNEFELD: That's that's the practice |
| 22 | we've taken so far. If this may for |
| 23 | resolution of something like this, it may |
| 24 | involve specific discussion about this or or |
| 25 | not, but I know I think Mark would probably |
| | |

1 want more discussion than just what I said. 2 MS. MUNN: I am quite sure he would, but it 3 appears obvious to me that a response from SC&A 4 is required for the NIOSH follow-up. Is anyone 5 else reading that any differently than I? 6 Looks like the ball's in SC&A's court to 7 respond to the NIOSH follow-up and express either agreement, disagreement or 8 9 qualification. 10 (No responses) 11 It will hopefully appear on our next open items 12 list, since it didn't pop up this time. 13 MR. MARSCHKE: It -- because it's an in 14 progress list --15 It's an in progress --MS. MUNN: 16 MR. MARSCHKE: -- sort of an in progress item, 17 and I wasn't -- this -- this was just --18 MS. MUNN: This is just open. 19 MR. MARSCHKE: -- pure item-- open --20 I know, I know. MS. MUNN: 21 MR. MARSCHKE: Yeah. 22 MS. MUNN: We'll -- we'll expand it the next 23 time we go through it to include these. 24 17-04 is addressed in finding 17-03. We agreed 25 to transfer it, so that's all right. It's

| 1 | closed. |
|----|--|
| 2 | The next one is item five, also addressed in |
| 3 | item three, for which we are expecting a |
| 4 | response. That's all right. |
| 5 | Go on to item six, which is closed. There is a |
| 6 | related link aha, there's a white paper. |
| 7 | (Unintelligible) white paper, it appears SC&A |
| 8 | and NIOSH agree, closed appropriate, and a |
| 9 | nice link. Thank all involved. |
| 10 | 17-07, closed by recommendation of the working |
| 11 | group. |
| 12 | Next item is 08, closed. Working group did not |
| 13 | actually state that this issue is it closed, |
| 14 | with the transcript to indicate that for all |
| 15 | intents and purposes this issue still need |
| 16 | some words out there has been fully |
| 17 | addressed, should say. Discussion extensive |
| 18 | (unintelligible) I remember talking about |
| 19 | this, at considerable length. I think that all |
| 20 | that this requires is this issue has been |
| 21 | addressed and is closed. The addition of those |
| 22 | words in the workgroup directives should do it |
| 23 | for us. |
| 24 | MR. MARSCHKE: Yeah, when they were when |
| 25 | they were populating the database, basically |
| | |

1 they did cut-and-paste from --2 MS. MUNN: Right. 3 MR. MARSCHKE: -- other documents, and obviously something got --4 5 MS. MUNN: Yeah. 6 MR. MARSCHKE: -- didn't get --7 MS. MUNN: Yeah. 8 MR. MARSCHKE: -- copied right. 9 MS. MUNN: Yeah. 10 MR. MARSCHKE: So we'll go back to the original 11 document and find out what the remainder of 12 that statement is. If you would. I believe it should 13 MS. MUNN: 14 say has been addressed and is closed, but if 15 you would do that, I'd appreciate it. 16 Then our next issue that comes up would be item 17 nine, closed, Board agrees, no further action, 18 that's appropriate. 19 Ten, recommended closing it, no further action, 20 fine. 21 Eleven, same. I remember doing a lot of work 22 with 17. 23 Yeah, we're fine, all fine -- 13, 14, 15. 24 Now we're back to 18-01 has been transferred, 25 review of OTIB-9 will catch that one. Okay.

1 18-2 is closed. And 18-3 is closed; 18-4, 2 closed. 3 And now we come to the outstanding one, 18-5 4 shows open, but here is the response -- the 5 finding was a more thorough evaluation of air 6 monitoring programs at DOE facilities is 7 required to ensure that OTIB-18 represents 8 favorable -- claimant-favorable approach to 9 assessing internal dose. 10 And the NIOSH response is the OTIB was 11 developed to apply to individuals who were not 12 routinely exposed to radioactive materials of facilities with rigorous air monitoring 13 14 It does not assign intakes based on programs. 15 air monitoring, per se. The assumption is that 16 air monitoring was performed at the site and 17 work areas, and the work performed in them were 18 controlled based on the air sample results. 19 Actions taken based on air samples could take 20 from limiting time in the area, requiring 21 respirators, moving the work to a hood or 22 glovebox, et cetera, making it unlikely that 23 workers with lower potentials for intakes were 24 consistently exposed at levels exceeding these 25 limits. In the case of workers with negative

1 bioassay results, the OTIB contains tables of 2 results that yield smaller intake rates than 3 those assigned to OTIB -- by OTIB-18. A list 4 of applicable sites was generated with TBD 5 authors familiar with the sites, in general, 6 sites to which this would apply, include the 7 large DOE facilities and some of the smaller 8 ones. For other small sites and AWE 9 facilities, the DR must provide justification 10 for using this approach. The user's guide for 11 using the tool is attached. This includes the 12 list of approved sites. The related link is 13 given and the recommendation is to close, and 14 SC&A agrees with the response. 15 Any objection? 16 MR. GIBSON: Yes. 17 MS. MUNN: Yes. 18 MR. GIBSON: I'd like to look into this some 19 more. 20 MS. MUNN: Okay. MR. GIBSON: Any -- to say any DOE facility had 21 22 a robust air monitoring program, I -- I'd like 23 to look into that a little bit more. 24 MS. MUNN: All right. Hold. 25 MR. HINNEFELD: Would we change that to in

1 progress then? (Unintelligible) a problem with 2 that? 3 MS. MUNN: Yes, we would. All right, it's in 4 progress, awaiting further review. 5 MR. HINNEFELD: The addition discussion you're 6 -- Mike, then is about -- are you interested in the -- which specific sites are included here? 7 8 Because it's not all sites. There are certain 9 sites that are supposed -- that -- you know, 10 where this is going to be applicable to 11 (unintelligible) I guess it's not supposed to 12 be applicable to, and is it just -- what --13 MR. GIBSON: Just -- yeah, just any information 14 you could provide me and I'll just -- I'm 15 really not familiar with this TIB -- you know, 16 the section of this TIB right now. 17 MR. HINNEFELD: Yeah, I'm not, either. So --18 but -- so it's sort of like you want -- you 19 know, we just say here that there -- these 20 sites have robust air monitoring programs, and 21 you want -- rather than just take it at face 22 value that these sites had robust -- you would 23 want to know what evidence do we have that they 24 did. 25 MR. GIBSON: Right, and what evidence that the

1 worker was less likely to be exposed and, you 2 know, just all the caveats that you had in your 3 response. 4 MR. HINNEFELD: Okay, so you're -- okay, so 5 what evidence do we have that they had robust 6 air monitoring program and what evidence do we 7 have that they had appropriate controls and 8 took appropriate action based on -- on those --9 on air monitoring results, if -- if in fact 10 (unintelligible) program. 11 MR. GIBSON: Yeah. 12 That kind of stuff? MR. HINNEFELD: 13 MR. GIBSON: Uh-huh. 14 MR. HINNEFELD: Okay. 15 So we'll call it in progress, and MS. MUNN: 16 the workgroup directive will be requests 17 additional details from NIOSH. 18 Next issue comes up for me is 18-6. This is 19 another one that is suggested to be in abeyance 20 by SC&A, concurs with NIOSH's proposed solution 21 in a revised TIB, so SC&A agrees, but we need 22 to hold it in abeyance for a revision. 23 Correct? Awaiting revision? OTIB will be 24 revised to include this information, so it's in 25 abeyance, awaiting --

1 **UNIDENTIFIED:** Correct. 2 **MS. MUNN:** -- a revision of the TIB. Okay. Do 3 we want to take a five-minute break? 4 MR. HINNEFELD: It would be helpful for me. 5 MS. MUNN: Okay, let's do five minutes. 6 DR. WADE: If anyone is still with us on the 7 line, we're going to take a five-minute break. 8 Is anybody out there? 9 I'm still MS. HOMOKI-TITUS: This is Liz. 10 here. 11 DR. WADE: You're a trooper. 12 MS. MUNN: Yeah, sure are. Thank you. DR. WADE: We're just going to take five. 13 14 MS. HOMOKI-TITUS: I appreciate it, too. 15 (Whereupon, a recess was taken from 3:56 p.m. 16 to 4:03 p.m.) 17 DR. WADE: Okay, this is the workgroup 18 conference room. We're back in session. This 19 is the last call, we think. 20 MS. MUNN: Uh-huh, we think. We've just 21 completed 18-06 with a recommendation that the 22 status be changed to in abeyance, awaiting a 23 revised OTIB. 24 The next item that comes up on the screen is 25 18-07, transferred to the new expec--

anticipated OTIB.

| 2 | Next item is 19-01, shown as in progress. The |
|----|---|
| 3 | OTIB's recommendations for interpreting the |
| 4 | regression are two. Do not take into account |
| 5 | the fact that there is a conditional dependence |
| 6 | within the data, and that there is censored |
| 7 | data. The R-2 values need to be adjusted to |
| 8 | account for conditional dependence. NIOSH's |
| 9 | response was information was intended as |
| 10 | general guidance, not a requirement. Each set |
| 11 | of data has its own unique properties and those |
| 12 | taken into account as much as possible. |
| 13 | Then there was some additional verbiage there, |
| 14 | which had been requested, I believe. Our |
| 15 | directive had been to have additional data |
| 16 | provided a suggested revisions to the OTIB |
| 17 | that address this issue. I don't see whether |
| 18 | the second NIOSH response, 9-18, fulfills that |
| 19 | request. It appears the workgroup directive |
| 20 | was made after that. It's difficult to see why |
| 21 | we still have this there's an extensive |
| 22 | discussion over in the NIOSH/SCA discussion. |
| 23 | It's not appropriate to rank numbers rank |
| 24 | order a set of numbers from low to high, assign |
| 25 | a Z score to the numbers and fit a line to a |
| | |

1 high correlation coefficient -- to conclude 2 that a high correlation coefficient indicates a 3 qood fit for a lognormal distribution. It's 4 only when you have paired measurements; that 5 is, time and urine concentration 6 (unintelligible) values do a test of a curve 7 fit of the data to a lognormal distribution. 8 SC&A suggests simply rank ordinary numbers and 9 directly plucking off a 50 to 90 percent value 10 rather than imposing an artificial distribution 11 to the values. NIOSH understood and agreed to 12 some degree with SC&A concerns, but agreed to 13 do some editing of the OTIB. The end progress 14 appears to be appropriate. It appears that we 15 have an action item that has not been addressed 16 elsewhere, mainly a potential edit of the OTIB, 17 or in any case a resolution of the issue 18 between the two groups. 19 MR. HINNEFELD: As a --20 MS. MUNN: The last thing I have is NIOSH will 21 confer with Jim on the issue and get back to 22 the --23 MR. HINNEFELD: Yeah, we've done -- our staff 24 has done quite a lot of work on this. We 25 worked on every -- we looked at every coworker

1 dose (unintelligible) distribution we've used 2 as of the date we did the analysis, and that 3 was a lot --4 MS. MUNN: Uh-huh. 5 MR. HINNEFELD: -- and compared the various 6 approaches, whether you rank order the data or 7 do the fit (unintelligible) doing it, so 8 apparently we've never delivered that to the 9 working group. I'll have to get with Jim and 10 see -- we may not have actually gotten to a 11 final product of how exactly we're going to 12 phrase this and what does this mean in terms of 13 doing -- you know, (unintelligible) some 14 modification of TIB has been made or not. So -15 - but I'll have to get back with Jim and -- and 16 see where we were on that 'cause I know they've 17 gotten fairly far along and to the point of 18 having a tabular comparison of the techniques 19 for various work -- you know, coworker or work 20 population distributions. But I don't know now 21 what happened (unintelligible) got to get with 22 Jim and sort out where we are. 23 MS. MUNN: Yeah, it looks as though the -- the last thing I see down here is that Jim was 24 25 qoing to get back to us -- it says to the work

1 -- I am assuming that means workgroup instead 2 of Board --3 MR. HINNEFELD: I think he was going to Warner 4 Brothers Park. 5 MS. MUNN: I think so, yeah -- at the next meeting. So we'll have a report from Jim --6 7 I'll ask -- I'll have that on my agenda for the 8 -- that Redondo Beach meeting, not with the 9 anticipation he will do any more work, but that 10 we'll get a status of what has been done and --11 MR. HINNEFELD: Right. 12 **MS. MUNN:** -- whether it is closed or not. 13 MR. HINNEFELD: Right, I'll see what Jim will 14 (unintelligible). MS. MUNN: Status only. Just so -- primarily 15 16 so we can make sure we're on the right track 17 here in the database. 18 The next issue, OTIB-20-01 is closed, with a 19 review, transcript -- general concurrence, it's 20 recommended the issue be closed -- yeah, that 21 one's okay. 22 The next issue, 20-02, is closed, see item one, 23 which was -- we talked about it. It's gone to 24 PROC-6 and other places, and we're good to go. 25 03 is the same closure; 04 -- I think we've

1 closed that whole -- that whole coworker 2 dosimetry data for external dose assignment, I 3 think we've closed them all. 20-06 and 22-01, SC&A finds no issue here. 4 5 It's judged to be a closed issue. The finding 6 was SC&A's review of this document produced no 7 comments, and SC&A agrees with its contents and 8 conclusions, so I don't know why this is even 9 listed on our (unintelligible), but I guess it 10 is. 11 23-01 --12 DR. ZIEMER: This gives us the record. 13 MS. MUNN: Gives us the record. 23 --14 23-01, missed neutron doses based on Yeah. 15 dosimetry records. SC&A --16 MR. HINNEFELD: Well, this is the one we talked 17 about at the start of the meeting. 18 MS. MUNN: Right. 19 MR. HINNEFELD: We went through the exposures 20 at the start of the meeting. 21 MS. MUNN: This is OTIB-23, we've done this, 22 and it's closed --23 DR. ZIEMER: 24s. 24 MS. MUNN: Yeah, it's closed appropriately. 25 MR. MARSCHKE: This is -- Kathy's going to give

the additional information.

1

2 MS. MUNN: Right. (Unintelligible) go away, 3 and 24-01, which is in abeyance, shows open. 4 The dose rates are expressed as per gram of 5 source isotopes rather than per gram of compound. NIOSH response says OTIB-24 will be 6 7 revised using a model computer code and dose 8 rates will be expressed appropriately. Do we 9 have any report of where we are with the 10 revision to OTIB-24? 11 MR. HINNEFELD: I don't have any report on 12 This is on the -- the list that Steve that. 13 handed out. 14 MS. MUNN: Uh-huh, yes. 15 DR. ZIEMER: We did all the 24s. 16 It's --MS. MUNN: 17 MR. HINNEFELD: We have -- NIOSH has talked 18 about them, but -- Steve and Bob Anigstein has 19 looked at them and --20 MR. MARSCHKE: Well, the answer to all the --21 the res-- NIOSH response to all the -- the 22 comments were we're going to run this modeling 23 computer code and do all the -- the doses. And 24 -- and so it's essentially if you just -- if 25 you run through all the NIOSH responses, it's -

1 - you know, we'll -- we'll be done with the 2 revised modeling computer code and -- and 3 everything will come out the way the issues 4 want them to, so... 5 MS. MUNN: So we'll list all of these 24s as in 6 abeyance, waiting on revised TB-- TIB. Right? 7 MR. MARSCHKE: Yes, revised OTIB. 8 MS. MUNN: And this will happen sometime in the 9 This is neutron dose rates foreseeable future. 10 from alpha neutron reactions in uranium and 11 thorium compounds. I don't know where we are 12 on that, but are we in agreement that in 13 abeyance is the proper change in status, 14 awaiting revised TBD -- TIB, excuse me. In 15 No disagreement? agreement? 16 (No responses) 17 Very qood. That gets us through 24. Let's see 18 what comes up on the screen, just scrolling 19 through that. 20 The next thing that comes up is 25-01, which is 21 closed. That was radium-226 activity from 22 breath radon measurements. The workgroup said 23 closed after SC&A's follow-up. That's 24 appropriate. 25 The next one I show is 28-01, elevation of

1 thorium annual dose, conversion factors, was 2 resolved with the working group's approval. 3 28-02, resolved with the working group's 4 approval. It's in abeyance, the listing of 5 files in the TIB is incomplete. A page change 6 will be initiated to include all files used. 7 MR. HINNEFELD: And we've -- we've revised that 8 procedure. 9 MS. MUNN: 28? 10 MR. HINNEFELD: Yeah. 11 MS. MUNN: So it looks as though NIOSH has an 12 action to --13 MR. MARSCHKE: Or it may be already -- what 14 you're saying, Stu, is --15 MR. HINNEFELD: It's revised. 16 It's revised. MS. MUNN: 17 MR. MARSCHKE: It's already been revised and --18 and the --19 MS. MUNN: It's revised. SC&A has a --20 MR. MARSCHKE: The list of file has been 21 updated. 22 MR. HINNEFELD: Yeah, actually it was -- we did 23 -- we don't refer to those files anymore 24 because we've generated (unintelligible) so the 25 -- the TIB I believe contains the data tables

1 that formerly were referred to as these files. 2 MR. MARSCHKE: Okay. 3 MR. HINNEFELD: I believe that's the situation. 4 MS. MUNN: So the final data entry on this 5 sheet should be NIOSH follow-up that --6 MR. HINNEFELD: I think -- I believe that 7 (unintelligible) SC&A, if this is the practice 8 you want to follow, SC&A look at the revision 9 to see if in fact it did --10 MS. MUNN: Right. 11 MR. HINNEFELD: -- resolve the issues. 12 MS. MUNN: Right. SC&A verify that the -- the 13 page change has been initiated and the files 14 were included, and then we can close it out That's OTIB-28-02. 15 next time. 16 (Unintelligible) revision. Okay. 17 The next one that comes up is 28-3, it's the 18 same thing, same requirement. 19 And now we come to the next one that Steve has 20 on his list, OTIB-33-01. He recommends that 21 being closed, that SC&A agrees with the NIOSH 22 response. Is there any problem with that from 23 anyone here? This is the --24 MR. GIBSON: I would -- I would say Mark would 25 want to look over this.

| 1 | MS. MUNN: Application of internal doses. |
|----|--|
| 2 | MR. GIBSON: Coworker data. |
| 3 | MS. MUNN: Is included in document attached to |
| 4 | 18-05. You want to hold it for Mark? |
| 5 | MR. GIBSON: I would say so he may just say |
| 6 | go ahead and close it. |
| 7 | MS. MUNN: Okay, it'll be on our list next |
| 8 | time. |
| 9 | The next issue is 01, procedure's been revised |
| 10 | this is the ORAU procedure for Privacy Act |
| 11 | compliance, which is consistent. Well, this is |
| 12 | under additional requests for DOE information, |
| 13 | so the most recent information we had was a |
| 14 | year ago that the procedure is in the process |
| 15 | of being revised. Do we have any information |
| 16 | on the current status of PROC-22? It's an |
| 17 | administrative, rather than a technical, |
| 18 | procedure. |
| 19 | MR. HINNEFELD: No, I don't have any status. |
| 20 | MS. MUNN: It will appear on our next list. |
| 21 | The next one that comes up is 22-02, this is |
| 22 | the same procedure, so it's it says the |
| 23 | issue is satisfactorily resolved, but it shows |
| 24 | in abeyance. |
| 25 | MR. HINNEFELD: Well, because we promised we'd |
| | |

be revising it.

| - | |
|----|--|
| 2 | MS. MUNN: Uh-huh. And the next issue is 31 |
| 3 | PROC-31-01, DOE TBD development and approval |
| 4 | process. It's closed appropriately. |
| 5 | Next one is 02, closed appropriately; 03, |
| 6 | closed appropriately. |
| 7 | PROC-60-01, currently open. It's on Steve's |
| 8 | list. He suggests closed, replaced by PROC-60- |
| 9 | 02 of the review of PROC-0060, Rev. 1. It's |
| 10 | external on-site ambient. Procedure provides |
| 11 | direction in the last two paragraphs under |
| 12 | Section 5. It appears to be appropriate to |
| 13 | close it since the method for maximum doses is |
| 14 | addressed in Section 5, it says. |
| 15 | Any problem with accepting SC&A's |
| 16 | recommendation to close? |
| 17 | MR. GIBSON: Which which one are you on now? |
| 18 | DR. ZIEMER: 60-01. |
| 19 | MS. MUNN: This is 60-01. It's been replaced. |
| 20 | MR. MARSCHKE: What happened was the when we |
| 21 | did the revision, we reviewed the revision to |
| 22 | PROC-60. We essentially cut and paste this |
| 23 | first issue on and brought it forward as a - |
| 24 | - an issue under under the re you know, |
| 25 | the fact that this had not been addressed yet, |
| | |

1 we brought it forward as a -- as a issue, so 2 there's really -- this issue is really in here 3 twice --MR. GIBSON: Okay, so that's --4 5 MR. MARSCHKE: -- under Rev. 0 and under Rev. 6 1. 7 MR. GIBSON: It's closed here, but it's not 8 been resolved; it's just been moved. 9 MR. MARSCHKE: It's just been moved. 10 MR. GIBSON: Okay. 11 MR. MARSCHKE: This is almost the same as 12 transferred to. 13 MR. GIBSON: Okay. 14 MR. MARSCHKE: But it -- you know. 15 MS. MUNN: But it really isn't. 16 MR. MARSCHKE: 'Cause there's al-- but there's 17 already --18 MR. GIBSON: Okay. 19 MR. MARSCHKE: -- an issue there. 20 MS. MUNN: Yeah. Accepted? 21 MR. GIBSON: Yeah. 22 MS. MUNN: Close it, and identify the proper 23 words. 24 The next one that comes up is on the list, 25 PROC-61-01. It says we suggest that NIOSH

1 implement a system that updates all referenced 2 and any procedure where an updated document is 3 cited. NIOSH's response is good suggestion. 4 It has remained open. As SC&A indicates, it's 5 covered in PROC-61 Rev. 2. It's appropriate to 6 close it and incorporate those words, hearing 7 no objection. 8 (No responses) 9 All right, Steve. The next item that comes up 10 is PROC-61-02. It's the same response, it's 11 covered in PROC-61 Rev. 2, and the 12 recommendation here is that it be closed because it's outstanding there, it's covered. 13 14 No objection here? 15 (No responses) 16 So ordered. The same is true of PROC-61, item 17 three. Again, it's covered in PROC-61 Rev. 2, 18 so it's appropriate to incorporate those words 19 and call it closed. 20 DR. ZIEMER: Well, let me --21 MS. MUNN: No? 22 DR. ZIEMER: It looks like NIOSH didn't 23 understand the finding. 24 MS. MUNN: It says they want more information 25 about the comment.

1 DR. ZIEMER: The response is they can't provide 2 a response. 3 MR. HINNEFELD: I'm not -- I'm not familiar 4 with (unintelligible). 5 DR. ZIEMER: It's not obvious to me why this 6 one was closed. 7 MR. MARSCHKE: I'll have to get with Harry 8 Pentagail*. He's the one who basically did the 9 review on this, and I'll have to ask him why he 10 feels that this is appropriate to close, given 11 NIOSH's -- 'cause he did not just look at 12 NIOSH's response. He looked at the Revision 2 13 to this -- to this procedure, so -- and why he 14 felt that Revision 2 addressed the issue, even 15 though the response there doesn't -- indicates 16 that there wasn't enough information for NIOSH 17 to understand what the issue was. 18 MR. HINNEFELD: Could be we fixed it by 19 accident. You know, may have written a more 20 clear set of directions. 21 MS. MUNN: That's possible. 22 DR. ZIEMER: Cleared up. 23 MR. HINNEFELD: It cleared it up. I don't 24 know. 25 MR. MARSCHKE: I don't know, I'll try to get --

1 DR. ZIEMER: The basis for closure, though, is 2 not obvious. 3 MR. MARSCHKE: Right, I'll have to go get more 4 information from Harry. 5 MS. MUNN: Good. 6 MR. HINNEFELD: So will this be then in 7 progress? 8 MS. MUNN: This will be in progress. Uh-huh. 9 And the next issue that comes up is 61-04, 10 which remains open. The dose reconstructor is 11 not advised to make corrections for retakes or 12 additional exposures due to poor technique in processing, yet estimated maximizing dose may 13 14 not be claimant favorable. Retakes were 15 usually recorded. Reference is Trout, and 16 there was no -- no response to NIOSH's initial 17 response, nothing back from SC&A. It appears 18 to remain open. SC&A says on our list today 19 that it's not addressed in the new version of 20 PROC-61, so it appears that -- I'm interpreting 21 that to mean that SC&A does not accept NIOSH's 22 response here. 23 MR. MARSCHKE: I think we kind of accepted the 24 response, but I don't think the revision really 25 incorporated that response. I think -- that's

1 the way I -- I read this, if I recall 2 correctly. I -- again, I'll have to talk to --3 to Harry and -- and get that confirmed. 4 MR. HINNEFELD: Yeah, I think -- our response 5 was intended -- I mean certainly you need to 6 talk to Harry. Our response was intended to 7 say that we feel like the numbers are okay, 8 retakes are -- are appropriately considered 9 based upon this, you know, 'cause -- and so I 10 don't know that we proposed to include language 11 to that effect in the -- in the site -- in the 12 TBD or the TIB, or the procedure, but -- I mean 13 if that -- if you feel like that's important --14 well, you know, at some point we -- you know, 15 at some point we can get to it, you know. 16 MS. MUNN: Well, let's -- if -- if the words 17 that were being used here in NIOSH's response 18 are not adequate -- I mean if -- if these were 19 adequate to meet the concern, then it would not 20 appear that the new revision would require 21 anything additionally, unless there was some --22 some elimination of -- of material in the new 23 procedure. 24 DR. ZIEMER: Well, it seems to me if the retake 25 rate was -- was substantial, like if was 50

1 percent rather than three percent, then you'd 2 think seriously about correcting for that. But 3 at three percent, the other correction more 4 than compensates for that. 5 MR. HINNEFELD: Well, that's what we said. 6 DR. ZIEMER: In other words, for every -- for every 100 X-rays a worker got -- if he worked 7 8 there 50 years, he got two a year -- you'd 9 throw in a --10 MR. HINNEFELD: Three more. 11 DR. ZIEMER: -- three more, it's not going to 12 change their total very much, or you'd increase 13 it by three percent or whatever it is. Ιf 14 retakes were 50 or 60 or 70 percent --15 MR. HINNEFELD: Yeah. 16 DR. ZIEMER: -- on average, then you -- then 17 you could justify okay, we're going to double 18 it. 19 MS. THOMAS: I think what they're saying in the 20 response, too, is if they worked for 20 years 21 but there may be only a record of ten 22 procedures performed --23 DR. ZIEMER: You're still --24 MS. THOMAS: -- they get 20 --25 DR. ZIEMER: -- you're still going to have 20

anyway.

| 2 | MS. THOMAS: so and if those are double |
|----|---|
| 3 | exposures, meaning a lateral and PA chest, for |
| 4 | example, you know, that's they get assigned |
| 5 | the dose from all of those for 20 years to |
| 6 | (unintelligible). Now that, you know, depends |
| 7 | on what the site profile says. It's not going |
| 8 | to be the same |
| 9 | DR. ZIEMER: Right. |
| 10 | MS. THOMAS: in every case, but in other |
| 11 | words, the it's more at a macro level than a |
| 12 | repeat of one projection at one time. |
| 13 | DR. ZIEMER: Well, I guess we |
| 14 | MS. THOMAS: (Unintelligible) what I'm saying? |
| 15 | DR. ZIEMER: we don't have SC&A's response |
| 16 | in any event to |
| 17 | MS. MUNN: No. |
| 18 | MR. HINNEFELD: Yeah, I think |
| 19 | MS. MUNN: The SC&A |
| 20 | MR. HINNEFELD: If you can just let us |
| 21 | MS. MUNN: here's we need clarification |
| 22 | from SC&A about exactly what this means. |
| 23 | That'll be on our our list next time. |
| 24 | And the next issue that comes up is PROC-65-01, |
| 25 | which is closed, issue resolved to the |
| | |

1 satisfaction of the workgroup. 2 65-02, likewise; 66-01, likewise; 67-01, 3 likewise; 67-02, correctly done; 69-01, the 4 right words; 77-01, correct; 77-02, correct; 03, correct; 80-01, fine; 80-02, correct; 91-5 6 01, correct; 91 -- and that's the end of it. 7 MR. HINNEFELD: The end of the line. 8 MS. MUNN: And we have come to the end of it. 9 DR. WADE: Oh, shucks. 10 MS. MUNN: And here we were looking forward to 11 a nice midnight lunch. 12 All right, you've heard my expectation for what 13 we hope to have on our fairly abbreviated 14 agenda at the end of the full Board meeting in 15 Redondo Beach in September. 16 MR. GIBSON: You going to start on the third 17 set now? 18 We will start on the third set at MS. MUNN: 19 that time, if we do not get through our 20 abbreviated agenda. But for the time being, I will make an effort to -- I'll ask Steve to 21 22 pull together a revised set two items that we 23 did not clear here, and I'll -- will ask you to 24 give me an e-mail of what you have your action 25 items to be for that group so that I can verify

1 that it's the same for me. And Stu, could I 2 ask the same of you, if you'll give me, at --3 at your --4 MR. HINNEFELD: My -- my notes of what I think 5 our action items are? 6 MS. MUNN: Just -- yeah, what you believe your 7 action items were from this one. 8 MR. HINNEFELD: Yeah. 9 MS. MUNN: That would be helpful. Does anyone 10 have any additional information they feel needs 11 to go on the record for this meeting? 12 MR. HINNEFELD: What are we covering next time? We talked about that. I just want to be sure I 13 14 got it. We're starting on those two other 15 reports --16 MS. MUNN: We're going to do those -- just 17 incorporate them in our -- our overview list. 18 We're going to try to clean up as much of this 19 set two as we can. We've had several -- going 20 through set two where we've had a number of 21 items jump back out at us that we still have 22 outstanding. 23 DR. ZIEMER: Have a number of SC&A closure 24 statements --25 MS. MUNN: Yes.

1 DR. ZIEMER: -- that we're looking for. 2 MS. MUNN: That's true. 3 DR. ZIEMER: In this group that -- in set two. MS. MUNN: Exactly, so we'll go through --4 5 DR. ZIEMER: I'm not sure you guys have 6 anything --7 MS. MUNN: I don't think --8 DR. ZIEMER: -- much for our next meeting. 9 MS. MUNN: I don't think so. We tried to leave 10 anything other than just an occasional status 11 report --12 DR. ZIEMER: I think -- I think Jim pretty well 13 said (unintelligible). 14 MS. MUNN: Yeah. 15 MR. HINNEFELD: I was -- that's what I was just 16 going to say, I don't know that we can do 17 anything --18 MS. MUNN: No. 19 MR. HINNEFELD: -- before the next meeting. 20 MS. MUNN: No. 21 DR. ZIEMER: No, I think Jim said you couldn't. 22 MS. MUNN: The only -- the only thing that I 23 have here is on OTIB-19-01. We had said that -24 - that Jim was going to give a status report 25 several months ago to the Board, and we -- all

1 we were just asking is what is the status now. 2 We weren't asking for any action other than 3 what's already been done. We just don't have any knowledge of where we are. 4 5 MR. HINNEFELD: That's OTIB-19? MS. MUNN: OTIB-19-01, uh-huh. 6 7 DR. ZIEMER: John Mauro was going to give us 8 sort of their sense of this draft. Right? 9 MS. MUNN: Yes, uh-huh. 10 DR. ZIEMER: And I don't know where SC&A will 11 be on the closure statements with -- will those 12 be ready or not. That's not very much time. 13 MS. ADAMS: No, some will be --14 MR. MARSCHKE: I don't know. 15 MS. MUNN: I imagine some will --16 I don't think it would take a MR. MARSCHKE: 17 lot of effort on Steve -- basically they were 18 Steve Ostrow's --19 DR. ZIEMER: Yeah. MR. MARSCHKE: -- PR-5 and PR-7. I don't think 20 21 _ _ 22 DR. ZIEMER: So that he can perhaps --23 **MR. MARSCHKE:** We will shoot for that. I'11 talk -- talk to Steve Ostrow tomorrow on line, 24 25 send you an e-mail, Wanda, about my action

| 1 | items. I will let you know what he thinks. |
|----|---|
| 2 | MS. MUNN: Thanks, Steve. I appreciate that. |
| 3 | UNIDENTIFIED: And Steve, you'll do one more |
| 4 | database update so that we can get that |
| 5 | transferred early in the week before early |
| 6 | in the week of the meeting so that by Thursday |
| 7 | afternoon we'll have a revised |
| 8 | (unintelligible). |
| 9 | MR. MARSCHKE: Which week? There was a |
| 10 | Labor Day week? I will stop updating it I |
| 11 | will update it up until the Friday before Labor |
| 12 | Day. When is that? That's the 30th? |
| 13 | MS. MUNN: Something like that. |
| 14 | UNIDENTIFIED: Something like that. |
| 15 | MR. MARSCHKE: 29th, something like that? |
| 16 | MS. MUNN: Yeah. |
| 17 | MR. MARSCHKE: Then I will freeze it at that |
| 18 | point and you can take it |
| 19 | MR. HINNEFELD: But anytime that next week we |
| 20 | can bring it over |
| 21 | UNIDENTIFIED: Bring that over to |
| 22 | MR. HINNEFELD: to our side so we |
| 23 | (unintelligible) looking at it up there. |
| 24 | MS. MUNN: That'll be great. Anything else? |
| 25 | DR. WADE: Last chance. |
| | |

1 MR. HINNEFELD: Did we say earlier we were 2 going to do a similar kind of thing on -- not 3 OTIB-52 but one of the other products, the 9-20 - 07?4 5 **MS. MUNN:** We're going to look at those. Ι 6 think in each case those are -- there's only 7 one or two --8 MR. HINNEFELD: Okay. 9 MS. MUNN: -- procedures involved, and we just 10 wanted to incorporate them, get through that 11 fiscal year, before we start the set of three. 12 I think we probably already have statused them in one way or another. 13 14 MR. HINNEFELD: Okay. MS. MUNN: 15 I doubt there'll be any work to do. 16 We just want to get them on our list as having 17 been covered. 18 MR. HINNEFELD: Okay. 19 DR. WADE: Okey-doke? 20 MS. MUNN: All right. 21 DR. WADE: Okay, we're going to sign off, all 22 you on the telephone line. We are done. 23 MS. MUNN: Thank you so much. You can stick a 24 fork in all of us. 25 (Whereupon, the meeting adjourned at 4:40 p.m.)

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 Aug. 21, 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 12th day of Sept., 2008.

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