UNITED STATES OF AMERICA
DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL AND PREVENTION

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NATIONAL INSTITUTE FOR OCCUPATIONAL
SAFETY AND HEALTH
ADVISORY BOARD ON RADIATION AND
WORKER HEALTH

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SUBCOMMITTEE FOR DOSE RECONSTRUCTION REVIEW

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THURSDAY, MARCH 12, 2009

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The meeting came to order at 9:30 a.m., in the Zurich Room of the Cincinnati Airport Marriott Hotel, Hebron, Kentucky, Mark Griffon, Chairman, presiding.

### PRESENT:

MARK GRIFFON, Chairman BRADLEY P. CLAWSON, Member MICHAEL H. GIBSON, Member WANDA I. MUNN, Member\*

THEODORE M. KATZ, Acting Designated Federal Official

# IDENTIFIED PARTICIPANTS:

NANCY ADAMS, NIOSH Contractor\*
KATHY BEHLING, SC&A\*
DOUG FARVER, SC&A
STUART HINNEFELD, NIOSH
EMILY HOWELL, HHS
ROY LLOYD, HHS\*
JOHN MAURO, SC&A
SCOTT SIEBERT, NIOSH

\*Participating via telephone

# 1 P-R-O-C-E-E-D-I-N-G-S (9:30 a.m.)2 MR. KATZ: Good morning. This is 3 Ted Katz, the Acting DFO for the Advisory 4 Board of Radiation Worker Health. And this is 5 6 the Subcommittee on Dose Reconstruction 7 Review. Welcome, folks on the phone. 8 are going to start with roll call. Board 9 10 members in the room, starting with the Chair? CHAIRMAN GRIFFON: This is Mark 11 Griffon, Chair of the Subcommittee on Dose 12 13 Reconstruction. 14 MEMBER CLAWSON: Brad Clawson, 15 Advisory Board member. 16 MEMBER GIBSON: Mike Gibson, Advisory Board member. 17 MR. KATZ: And then on the 18 19 telephone, Wanda, do we have you? I believe Wanda Okay. Not yet. 20 is intending to attend. And Dr. Poston let us 21

know yesterday that he wouldn't be available

1	until this afternoon. So then
2	CHAIRMAN GRIFFON: Is Bob Presley,
3	is he
4	MR. KATZ: Bob, are you? Are you
5	on the line, Bob Presley?
6	Okay, then. For the NIOSH ORAU
7	team in the room?
8	MR. HINNEFELD: Stu Hinnefeld,
9	NIOSH Office Compensation Analysis Support.
10	MR. SIEBERT: And Scott Siebert,
11	the ORAU team.
12	MR. KATZ: And do we have any
13	NIOSH ORAU members on the line?
14	Okay. Then SC&A in the room?
15	DR. MAURO: John Mauro, SC&A.
16	MR. FARVER: Doug Farver, SC&A.
17	MR. KATZ: Any SC&A members on the
18	line?
19	MS. BEHLING: Kathy Behling, SC&A.
20	MR. KATZ: Welcome, Kathy.
21	MS. BEHLING: Thank you.
22	MR. KATZ: Okay. That covers.

1	And then other federal employees? There are
2	none in the room. On the line?
3	MR. LLOYD: Roy Lloyd, HHS.
4	MR. KATZ: Welcome, Roy.
5	MR. LLOYD: Thank you.
6	MR. KATZ: Okay. That covers. No
7	federal contractors either?
8	CHAIRMAN GRIFFON: Who is Roy?
9	MR. KATZ: Roy Lloyd, HHS.
10	CHAIRMAN GRIFFON: Oh. Okay.
11	MR. KATZ: Okay. Then that covers
12	attendance. Any members of the public or
13	staff of congressional offices on the line?
14	Okay. Then we can get going.
15	Mark, it is all yours.
16	CHAIRMAN GRIFFON: All right.
17	Okay. We have a lot of stuff on the agenda
18	today, which I am sure we are not going to get
19	through everything. But we missed the meeting
20	in January, I believe. It was snowed out. So
21	we are back to make up on some of that work.
22	One of the first items well,

let me just read a proposed agenda. I might have even sent out earlier something of an agenda, but the other might be slightly modified.

For those on the phone, just to let you know, if you have certain sections you want to click off, the first thing I want to do is this 11-set case selection. We have some proposed cases in front of us. This is really a Subcommittee item.

At the last meeting, the last
Board meeting, the Board communicated that we
could do the selection of the cases for this
round. And so we have a final set of cases
with all of the detailed information on it.
We are going to do that selection process in
a minute.

After that, we are going to go into the sixth and seventh set of cases. And there are some outstanding items on those. We are close to closing, I think, on most items on both of those sets of cases. It would be

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nice if we could close those out.

And then we have an eighth set of cases. The last version of a matrix I have is on December 8th, which has the latest. NIOSH added some additional response into that matrix. So this will be our first cut through of the findings in the eighth set of cases.

After lunch -- and this one I
wanted to try to save for after lunch because
I think John Poston is going to be able to
join us at that point, and we would like his
input on the discussion -- I would like to get
into that first 100 cases letter.

We brought a letter back to the Board. And Paul said it wasn't good enough.

No. Several people asked for more information. Sort of up front I think we wanted to have a better either executive summary or, you know, bottom line kind of bullet points. And I think that is what I want to take up after lunch.

And just in thinking about that,

people might consider how we are going to format that because one of the reasons we left it out, quite frankly, the first time was that I'm not sure we could come to a consensus on every item. So we didn't make a one single bottom line conclusion.

But we may not have to do it in that format. We may be able to -- you know, several things were identified during this review, including a listing of bullets of conclusions that we feel strongly about in that review.

So we will have that discussion.

And then depending on where we get, we will continue on these. I don't think we will need more on the agenda than that. That should be done by 5:00 o'clock. I think anybody who has to travel, has later flights, should be done by 4:30 or 5:00 o'clock, I would think this will take us up to.

So if there are no questions on the agenda, we will start it with the 11-set

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1	case selection. I mean, I have gone through
2	a lot of these. My overall impression was
3	that other than these, I shied away from
4	selecting multiple Bethlehem Steels or
5	multiple General Steels. I think it was like
6	three of each of those. But a lot of the
7	other ones I thought were reasonable for
8	selection. I mean, let's just do it a page at
9	a time and go through like we always do. And
10	I think, Wanda, are you on the line?
11	Not yet. Okay.
12	MR. KATZ: Bob, have you joined
13	us?
14	Okay.
15	CHAIRMAN GRIFFON: All right.
16	Well, I will keep a tally. It's just the
17	three of us right now. On the first page, I
18	selected all of them.
19	MS. ADAMS: Do you want me to try
20	and call and see if they will get on the line?
21	It's Nancy.

MR. HINNEFELD: That's Nancy.

1	MS. ADAMS: Do you want me to try
2	to call?
3	MR. KATZ: Nancy, that would be
4	great if you could give them a ring just to
5	check. It's early for Wanda. So I could
6	understand her
7	CHAIRMAN GRIFFON: It is early,
8	yes.
9	MR. KATZ: not being on the
10	line.
11	MS. ADAMS: And then who else is
12	missing? Bob?
13	MR. KATZ: Bob Presley.
14	CHAIRMAN GRIFFON: Right. He may
15	not be planning on it.
16	MS. ADAMS: Okay. Well, maybe
17	I'll wait like 15 minutes or so before I call
18	Wanda.
19	CHAIRMAN GRIFFON: Okay. Don't
20	want to get her mad.
21	MR. KATZ: It's okay, Nancy,
22	because she has an answering machine-type

1	hookup. So if she's not up, she won't pick it
2	up.
3	MS. ADAMS: Okay. Then I'll call.
4	All right.
5	MR. KATZ: Thanks.
6	CHAIRMAN GRIFFON: All right. So
7	do you want to pause or what? I don't think
8	we may that many other people on the phone if
9	you want to wait for them or no?
10	MR. KATZ: You don't need to.
11	CHAIRMAN GRIFFON: Okay. Anybody
12	have any opinions? I mean, I actually checked
13	every case on this page as being reasonable
14	for us to look at. Any dissenting view on
15	that?
16	MEMBER CLAWSON: No.
17	CHAIRMAN GRIFFON: All right.
18	Page 2? Page 2 I picked number 35, 37, 40,
19	and 42. The only ones I skipped were the
20	extra Bethlehem Steel cases.
21	MEMBER CLAWSON: That works.
22	CHAIRMAN GRIFFON: All right. The

1	next page, I have number 46, 47, and 51 at
2	the bottom of the page. I skipped the Hanford
3	number 48 because it seemed like we had a
4	couple of skin cancer ones coming in there.
5	I didn't want to. All right.
6	MR. SIEBERT: Did you skip Rocky
7	Flats for a reason, 43?
8	CHAIRMAN GRIFFON: I skipped 43.
9	Well, yes. That's when I was realizing maybe
LO	that's SEC. I don't think it's SEC anyway.
L1	I mean, I can't imagine it's not SEC.
L2	MR. SIEBERT: Right.
L3	CHAIRMAN GRIFFON: Those other two
L4	I didn't check the cancer on those, but let's
L5	leave those on there for now.
L6	Next page, I have 53, 56, 60, and
L7	61, although I guess we could look at either
L8	56 or '7 for General Steel. They are both
L9	lung cancers. One is a little closer to the
20	50th percentile.
21	MEMBER CLAWSON: I picked the one
2	

1	CHAIRMAN GRIFFON: Fifty-seven?
2	Okay. Yes. Yes. I just saw that. So it's
3	53, 57, 60, and 61.
4	MEMBER GIBSON: Mark the page 56,
5	though. Based on the job title, you wouldn't
6	expect chainman to have that much of a
7	CHAIRMAN GRIFFON: Yes. That is
8	
9	MR. SIEBERT: It's chainman.
LO	CHAIRMAN GRIFFON: Oh, chainman?
L1	Yes.
L2	MEMBER CLAWSON: Sorry about that.
L3	CHAIRMAN GRIFFON: It's time to
L4	put on my glasses. All right. So we'll stay
L5	with that, 53, 57, 60 and 61.
L6	Next page, I have 64, although I
L7	want no, no. Sixty-four is probably okay.
L8	Sixty-five, 67, 68, and 72. Really, just skip
L9	the General Steel case.
20	Next page, I have all of them
21	checked. And the other thing I will say is
22	that there were several Savannah River cases

1 in here and Hanford cases, and that is something I might not have mentioned on my 2 afternoon agenda, the selection criteria. 3 4 I still think we have done quite a 5 few cases with Savannah River and Hanford, but 6 when we looked at -- if we really wanted to 7 stay with that two and a half percent, we were still well below in the overall cases. 8 think we are okay with those. 9 10 We had a couple of best estimate cases for Hanford and Savannah River, where we 11 12 had some pretty lengthy discussions in the 13 fifth set, I think it was. So I think it might be good to revisit. I don't think it 14 15 hurts us to do several more of those. 16 six on that page. 17 And the last page was General Steel. 18 I skipped that last one. So I think 19 if my count is right, I had 27. 20 MEMBER CLAWSON: Yes. 21 CHAIRMAN GRIFFON: Twenty-seven, 22 And we may lose a few, but at least that

will give --

DR. MAURO: The General Steel now,

I know that they had been a two-phased

approach. It was the early General Steel.

And then this is in light of the matter that

you --

CHAIRMAN GRIFFON: I don't think you are loud enough.

DR. MAURO: Yes. Correct me if I am wrong. On General Steel, there may have been some earlier cases that used an earlier version of the site profile. And then perhaps I do believe the site profile was revised.

There may have been some later cases. I'm not sure.

I don't know if anyone on the line or here in the room recalls there may be an early date and late date that might make a difference. And it's the later date that --well, I don't know. I would guess you would want to look at both, especially if they were denied.

1	CHAIRMAN GRIFFON: These are all
2	done either 7-26-07 or 9-20-07 or the dates on
3	all.
4	DR. MAURO: Well, they were close.
5	CHAIRMAN GRIFFON: Is that your
6	completion date, that
7	MR. HINNEFELD: There is a date
8	approved or something.
9	CHAIRMAN GRIFFON: Date approved.
10	Yes, approval date.
11	MR. HINNEFELD: That is
12	essentially the completion date because that
13	is the date that the health physics reviewer
14	at OCAS says okay to the
15	CHAIRMAN GRIFFON: So they are all
16	done 7 to 9 '07 there.
17	DR. MAURO: They are probably all
18	the same. Okay.
19	MR. HINNEFELD: Yes. I think they
20	are probably old set. I am not 100 percent
21	sure there has been an amendment to the site
2.2	profile

1	DR. MAURO: Well, I know when the
2	film badge data came in, it had a sweeping
3	effect on it, but that went more toward
4	validating.
5	MR. HINNEFELD: Validating.
6	DR. MAURO: Yes.
7	MR. HINNEFELD: I think what we
8	considered the film badge data to do was to
9	validate that the model we had selected was
LO	bounding.
L1	DR. MAURO: Yes, you are right.
L2	MR. HINNEFELD: And I don't think
L3	we
L4	DR. MAURO: There was no need to
L5	revise.
L6	MR. HINNEFELD: And since it would
L7	be a downward adjustment, we tend not to put
L8	those very high.
L9	DR. MAURO: Never mind. You're
20	right.
21	MS. BEHLING: Excuse me. This is
22	Kathy. Just to add to John's comment, I think

1	with the General Steel, there were maybe two
2	selected, but the first one was pulled for
3	some reason. I only believe we have actually
4	evaluated one General Steel.
5	DR. MAURO: Yes. Kathy, the first
6	one that was pulled turned out to be Granite
7	City. It was one of those cases.
8	CHAIRMAN GRIFFON: Right.
9	MS. BEHLING: Okay.
LO	DR. MAURO: So you are right. We
L1	do have only right now one General Steel. And
L2	this would be the second one.
L3	CHAIRMAN GRIFFON: This would be
L4	the second one.
L5	DR. MAURO: Okay.
L6	MS. BEHLING: Okay. Very good.
L7	CHAIRMAN GRIFFON: Okay. So I
L8	guess the process from here is I will get
L9	these to Paul, but this is a Subcommittee
20	final decision here. Yes, yes.
21	MR. HINNEFELD: I believe the
22	Committee authorized the Subcommittee to make

1	the final decision. So I think yes, you
2	should notify Paul, but I will independently
3	send this list, the selected list, to Jeff
4	Kotsch, ask him he's usually pretty prompt
5	about this to look for what he calls
6	post-closure activities.
7	I will take another look. We will
8	take another look on our site, make sure
9	something hasn't reopened as well. Jeff will
10	probably tell us that anyway. And then
11	prepare the list. Let everybody know how many
12	it is. And I'll send the list to John.
13	DR. MAURO: Terrific.
14	MR. HINNEFELD: It will contain,
15	that list will contain, NIOSH tracking numbers
16	so that John's folks can find the case in the
17	office and be able to
18	DR. MAURO: Okay. And
19	MR. KATZ: Is it possible with
20	that follow-up work that something might drop
21	out, in other words?
22	MR. HINNEFELD: Oh, yes. Yes.

1	Some of these may drop off.
2	CHAIRMAN GRIFFON: Some of these
3	may drop off, right.
4	MR. KATZ: So if they do, do you
5	want to just establish now while you have the
6	working group in session that for the ones
7	where you had a duplicate at the same
8	facility, that you just swap out, then, as
9	opposed to losing
10	CHAIRMAN GRIFFON: If those drop
11	out
12	MR. HINNEFELD: Would you like me,
13	then, to select the next highest? I mean, if
14	you give me a decision criteria, you can make
15	it simple and say, select the next highest
16	POC. That is a simple one. There are others,
17	though. There may be some that are very
18	interesting and some that you want to check
19	that might be worthwhile.
20	CHAIRMAN GRIFFON: I mean, I think
21	for the Bethlehem Steel, if that one happens
22	to drop out, we could use on page 2 if

1	everyone agrees number 38 could be
2	replaced.
3	MR. HINNEFELD: Backup.
4	CHAIRMAN GRIFFON: Yes, backup.
5	So 38 as a backup Bethlehem Steel case, in
6	other words, not of another
7	MR. HINNEFELD: Same with the
8	CHAIRMAN GRIFFON: And then for
9	Granite City, yes, or GSI, I mean, yes. Let's
10	not go there. GSI. You started me on that.
11	GSI. I mean, I could get either one of
12	those is fine with me, the lung or the stomach
13	case. Anybody have a preference on those two
14	cases?
15	
16	MR. GIBSON: Do you want to do that
17	chainman?
18	(Laughter.)
19	CHAIRMAN GRIFFON: I read the same thing,
20	Mike. Let's have 56 as a backup, then, as far as
21	DR. MAURO: Do you have the lung?
22	Is the lung going to be picked?

1	CHAIRMAN GRIFFON: Yes.
2	DR. MAURO: Good.
3	CHAIRMAN GRIFFON: Yes. So those
4	two will be backups if those, Bethlehem or
5	GSI, happen to fall off. Right? Otherwise,
6	I mean, if the Rocky things fall off, we just
7	have a smaller number, for instance.
8	MR. HINNEFELD: Yes.
9	CHAIRMAN GRIFFON: The only other
10	thing I would ask, Stu, is I think, I guess,
11	if you get a final listing, if you will cc me
12	and Paul or something because Paul has got to
13	make the Board assignments for who is going to
14	review what cases.
15	MR. HINNEFELD: Okay.
16	CHAIRMAN GRIFFON: So that would
17	be the only other thing.
18	MEMBER MUNN: Good morning, all of
19	you.
20	MR. KATZ: Good morning. Welcome,
21	Wanda.
22	MEMBER MUNN: It's a good thing

1	Nancy called. So now I am awake.
2	(Laughter.)
3	I am upright. And my computer is
4	now glowing anyway. And I have no idea where
5	we are.
6	CHAIRMAN GRIFFON: Well, we just
7	finished the first agenda item.
8	MEMBER MUNN: How wonderful.
9	CHAIRMAN GRIFFON: It went
LO	swimmingly.
L1	MEMBER MUNN: I have the agenda as
L2	well. Okay.
L3	MS. ADAMS: Sorry to wake you,
L4	Wanda.
L5	MEMBER MUNN: Oh, that's quite all
L6	right. I am glad you did, Nancy. I have no
L7	idea how it well, I'm going to blame it on
L8	anesthesia.
L9	CHAIRMAN GRIFFON: Wanda, the
20	first item was the 11-set case selection. And
21	I think you should have gotten an e-mail from
22	Stu in the last couple of days, wasn't it,

1	last several?
2	MR. HINNEFELD: It's been within
3	the past week or two that
4	MEMBER MUNN: I can't blame it on
5	anesthesia. No kidding.
6	MR. HINNEFELD: I didn't do it
7	this week. I know that.
8	MEMBER MUNN: Let's see what I
9	have here.
10	MR. HINNEFELD: I did it probably
11	last
12	CHAIRMAN GRIFFON: Last week, I
13	think, maybe.
14	MR. HINNEFELD: Probably, yes.
15	CHAIRMAN GRIFFON: Yes. Anyway,
16	we went through those. There were about,
17	what, 40 total cases on there, Stu, or a
18	little less?
19	MR. HINNEFELD: Yes, something
20	like that. I don't know the
21	CHAIRMAN GRIFFON: Yes. And we
22	ended up with selecting 27 of those, at least

1	with the understanding that Stu has got to
2	bring those back to DOL and make sure that we
3	can review all of those, that they haven't
4	held up for something else.
5	MEMBER MUNN: Right.
6	CHAIRMAN GRIFFON: But I think we
7	have 27 right now. They're all between 45 and
8	50 percentile. If you recall, that's the ones
9	that
10	MEMBER MUNN: Yes.
11	CHAIRMAN GRIFFON: So let's see.
12	If you find a list, maybe at a break I can go
13	through which cases you selected in.
14	MEMBER MUNN: That's fine.
15	CHAIRMAN GRIFFON: Yes. Okay.
16	MR. KATZ: And just to summarize
17	for her as to how selection was done is
18	basically we stuck with just one case with
19	Bethlehem Steel, where there were numerous,
20	and one case of GSI, where there were
21	numerous.

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CHAIRMAN GRIFFON: And almost

1	every other case.
2	MR. KATZ: Almost everything else.
3	CHAIRMAN GRIFFON: We skipped a
4	few other ones but almost every other one,
5	yes. Yes. They all look pretty reasonable
6	for review.
7	MEMBER MUNN: Okay.
8	CHAIRMAN GRIFFON: But GSI, yes.
9	GSI had like four cases there. And they all
10	used the same site-wide models. So we only
11	selected one of those. And the same with
12	Bethlehem Steel had three, I believe. And we
13	used one of those.
14	MEMBER MUNN: Okay.
15	CHAIRMAN GRIFFON: And then yes,
16	otherwise pretty much across the board. Yes.
17	All right. Now we are going to
18	move on to the sixth set. And, Wanda, just to
19	give you a brief of where we are going today
20	while you are making your coffee
21	MEMBER MUNN: Yes. Right. This

is not going to happen.

CHAIRMAN GRIFFON: Yes. The sixth and seventh set we're going to discuss this morning. And if you recall, there are not that many outstanding items left on those. I believe if you check on your email, I sent those out.

I think I have one 29 on the date or one 27. It's right at the end of January.

It was before that last snowed-out meeting that I sent a revision of both those matrices, the sixth cases and the seven set of cases.

And, for ease of review, I believe

-- and we will have to check this as we walk

through them -- in the final column, if there

was still an outstanding item, I tried to

leave it highlighted in yellow so we could all

quickly scan through and find it. So that's

what we are going to do the rest of the

morning.

We also have an eighth set of cases that NIOSH gave us additional responses on.

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1	MR. HINNEFELD: When did you send
2	the matrix you are talking about?
3	CHAIRMAN GRIFFON: You didn't get
4	it?
5	MR. HINNEFELD: I don't know. I
6	don't know.
7	MR. SIEBERT: We look sufficiently
8	confused over here.
9	CHAIRMAN GRIFFON: Yes. Sorry.
LO	1/27/09. And I would have sent them probably
L1	to I think I just sent them to John and Stu
L2	and then assumed that you got you know, you
L3	would
L4	MS. BEHLING: Is it possible for
L5	someone to forward that to me? This is Kathy.
L6	MR. FARVER: Yes. I am
L7	comfortable with Kathy.
L8	MR. KATZ: It is coming your way,
L9	Kathy.
20	CHAIRMAN GRIFFON: I have my old
21	laptop. I am not able to get on mine here.
22	MR. HINNEFELD: If you are going

1	to e-mail it, how about email it for me, too?
2	MR. FARVER: I'm nice. I'll
3	e-mail it to
4	MS. BEHLING: Thank you.
5	CHAIRMAN GRIFFON: Okay. And then
6	while we are looking for these documents,
7	Wanda, then as we get there, we are going to
8	go into the eighth set. And that will be our
9	first pass-through on the eighth set of cases.
10	And then in the afternoon, after
11	lunch, I think this is one of the more
12	critical items, the first 100 cases letter
13	report. If you recall, we were asked to
14	revisit that.
15	MEMBER MUNN: Yes.
16	CHAIRMAN GRIFFON: And John Poston
17	can't be on until after lunch. So I kind of
18	wanted to do that item when John was able to
19	join us. So we are going to start that right
20	after lunch.
21	And then also we wanted to have a

discussion of the selection criteria,

1	whether we want to modify the selection
2	criteria at all, case selection criteria.
3	So that is pretty much the agenda,
4	just to give you a sense of where we are
5	going.
6	MEMBER MUNN: I have to find
7	something here.
8	CHAIRMAN GRIFFON: Okay. I know
9	it's a little early, but let's take a
10	five-minute pause. You can just mute the
11	phones maybe.
12	Let's get these documents e-mailed
13	and stuff, make sure everybody has them in
14	front of them, no sense moving on until we
15	have the documents.
16	(Whereupon, the above-entitled
17	matter went off the record at 9:56
18	a.m. and resumed at 10:01 a.m.)
19	MR. KATZ: Tea time is over. We
20	are starting up again. Do we have you, Wanda?
21	MEMBER MUNN: You have me, but
22	that's about all you have. Something has gone

1	wrong. Mr. Gates and I were arguing this
2	morning.
3	MR. KATZ: Your voice is cutting
4	out, Wanda.
5	MEMBER MUNN: That's because I
6	have my head in something other than the
7	speaker. I'm having a hard time even finding
8	my file. Mr. Gates has done something to me.
9	CHAIRMAN GRIFFON: So do you have
10	the electronic file, Wanda, or do you want us
11	to wait a minute or
12	MEMBER MUNN: No. Don't wait for
13	me because the file that should come up at my
14	bidding is not coming up at all.
15	CHAIRMAN GRIFFON: All right.
16	Well, we'll plunge ahead. This is old stuff
17	from the sixth and seventh set. So you have
18	certainly heard these before. So we will plow
19	ahead. And hopefully you will get new stuff
20	in front of you soon.
21	MEMBER MUNN: Keep going.
22	CHAIRMAN GRIFFON: All right. All

1	right. So what I am going to do is go through
2	the sixth set. Right now I'm going to just
3	scan down on the electronic version, but
4	please stop me if I miss something that is
5	still outstanding because I am not completely
6	100 percent confident that my little yellow
7	highlighting system is flawless. So please
8	stop me along the way if we have something
9	that is not resolved that wasn't in yellow
10	highlight.
11	The first one I see, though, is
12	finding 104.7. And it's there's an action,
13	NIOSH to provide the basis for the
14	concentration of transuranics used for this
15	site. So was this specific question about the
16	it's sort of a
17	DR. MAURO: Recycled uranium.
18	CHAIRMAN GRIFFON: Yes, recycled
19	uranium.
20	MR. HINNEFELD: Yes. I actually
21	know a little about this question. It won't

be necessarily the case on all of these. We

1	are, in fact, trying to decide how to deal
2	with this issue of publishing transuranic
3	contents. There is an effort, which is what
4	we said.
5	And it is still not approved.
6	There are some questions about is this really
7	the applicable thing, is this really what we
8	want to do.
9	So that is in the OCAS shop. That
LO	is not in ORAU. That is in the OCAS shop.
L1	And I just have to get the right couple of
L2	guys to decide, is this what we're going to do
L3	or not? If we're not going to do this, then
L4	where are we going to write what we're doing
L5	and showing identification for these things
L6	that we have selected?
L7	CHAIRMAN GRIFFON: So is it fair
L8	to say there is continued action or not?
L9	MR. HINNEFELD: We still owe you
20	something, yes.
21	CHAIRMAN GRIFFON: Okay.

MR. HINNEFELD: I will work on

1	that when I get back in the office.
2	CHAIRMAN GRIFFON: Okay. Just
3	bear with me. I'm trying to update this live
4	so I can then forward a copy right after this
5	meeting and we don't fall into that trap
6	again.
7	The next one I show is 107.4.
8	Doug, please stop me, too, if you find
9	something in your notes. 107.4 says NIOSH
10	agreed to provide additional analysis
11	information that's my note analysis on
12	this.
13	And this looks like a Hanford
14	case?
15	MR. HINNEFELD: Savannah River.
16	CHAIRMAN GRIFFON: Oh, I'm sorry.
17	Savannah River, yes.
18	MR. HINNEFELD: Yes.
19	CHAIRMAN GRIFFON: Wrong number
20	scheme.
21	MR. HINNEFELD: The finding
22	related to whether the chronic assumption,

1	chronic exposure assumption, is truly bounding
2	in this case. And we have generally used
3	chronic exposure scenarios for intermittent,
4	a bioassay where you have got some positives
5	and you can feel like a chronic exposure
6	generally bounded. But there was an analysis
7	done by SC&A that apparently called that
8	into question and we have not provided
9	addition. So this is on the list.
10	CHAIRMAN GRIFFON: It is still
11	outstanding?
12	MR. HINNEFELD: Yes.
13	CHAIRMAN GRIFFON: Okay. The
14	interesting thing on this, I mean, I want to
15	understand this because on 3/25, we said that
16	it would have no effect on the case. And it
17	looks like we are still continuing to plug
18	away on it.
19	MR. HINNEFELD: I think, yes, I
20	mean, if we can close on this case, that would
21	be one thing to do. But the question now

would remain, even if this case -- I guess

1	that means because of the initial analysis
2	with maybe the higher internal intake still
3	didn't change the compensability. I guess
4	that's what that means.
5	CHAIRMAN GRIFFON: Yes. I think
6	that is what that means.
7	MR. HINNEFELD: But there is the
8	open general question
9	CHAIRMAN GRIFFON: Of how
10	MR. HINNEFELD: since we use
11	this technique a lot
12	CHAIRMAN GRIFFON: A whole lot.
13	Right, right. So let's keep it
14	MR. HINNEFELD: are we really
15	confident that
16	CHAIRMAN GRIFFON: This is more in
17	the general
18	MR. HINNEFELD: I think that that
19	is probably why we
20	CHAIRMAN GRIFFON: Yes, I think we
21	concluded, you're right, that it didn't affect
22	the case either way.

1	MR. HINNEFELD: If I were you,
2	that is what I would be thinking.
3	CHAIRMAN GRIFFON: Right, even
4	with
5	MR. HINNEFELD: I am going to say
6	
7	CHAIRMAN GRIFFON: Oh, no, no.
8	I was just trying to understand. I think what
9	SC&A concluded was that, even if they used
LO	their approach, it still wouldn't have
L1	MR. HINNEFELD: Yes. It wouldn't
L2	have
L3	CHAIRMAN GRIFFON: changed the
L4	outcome. Right, right. We want to
L5	know why.
L6	MR. FARVER: I believe this is
L7	going to come down to one of these
L8	professional judgment calls.
L9	MR. HINNEFELD: Okay.
20	CHAIRMAN GRIFFON: Yes, yes.
21	MR. FARVER: I thought you had
22	provided this.

1	MR. HINNEFELD: Okay. There is a
2	fairly lengthy response. We have gone back on
3	it.
4	CHAIRMAN GRIFFON: Right.
5	MR. SIEBERT: I am kind of with
6	Doug. I think it ends up being professional
7	judgment as to
8	MR. FARVER: And I'm not sure that
9	either party can tell you which is correct.
10	So how do you decide? I guess that is kind of
11	where we left it, is how do you make that
12	determination?
13	DR. MAURO: For my edification, it
14	was my understanding that
15	CHAIRMAN GRIFFON: Yes.
16	DR. MAURO: when you are
17	confronted with a series of bioassay results,
18	a judgment, you try to fit the data or you
19	make an assumption that what is the chronic
20	intake or you make an assumption if you have
21	other information that it might have been a

single intake, halfway between the two at the

1	time this bioassay was taken and the previous
2	bioassay.
3	So, in other words, the last time
4	I was involved in this kind of question, it
5	was my understanding that assuming chronic
6	uniform is your standard practice, there are
7	times when you take exception to that. And
8	there's usually a rationale.
9	And I guess that in this
10	particular case, whichever approach you took
11	was something that we weren't expecting to
12	see. I think we were expecting to see either
13	one, chronic or
14	MR. HINNEFELD: I think the
15	comment was that a periodic acute would be
16	higher than what was
17	DR. MAURO: In this case.
18	MR. HINNEFELD: In this case.
19	DR. MAURO: This is a case, just
20	for anybody who is not with the reading here,
21	this is a firsthand annual bioassay. So
22	someone in their they fit into a job

1	category that is generally there is
2	potential for exposure that is not considered
3	one of the highly exposed.
4	MR. FARVER: I don't know.
5	DR. MAURO: So an annual bioassay
6	
7	MR. FARVER: I don't know if that
8	is true or not. A security guard can go
9	anywhere at any time.
10	MR. HINNEFELD: Okay. But they
11	would not be working directly with the
12	material, like some package or
13	MR. FARVER: You know, they might
14	be standing next to it.
15	MR. HINNEFELD: Well, they could.
16	They could. Our general approach is that what
17	we would consider security or exposed, we
18	wouldn't consider like, for instance, chemical
19	operator at Fernald or something like that.
20	MR. FARVER: No. And that depends
21	on the site.
22	MR. HINNEFELD: There is off-site

1	dependence on it. That's true. But that is
2	only partly relevant. If a person had annual
3	bioassay, which is another reason that that
4	the site felt that they were not heavily
5	exposed
6	MR. FARVER: And I believe what it
7	came down to is when you set the midpoint or
8	the intake
9	MR. HINNEFELD: And you could
10	fairly choose with an annual bioassay and then
11	there were no incidents or as I recall,
12	there were no incidents or follow-ups.
13	MR. SIEBERT: There was nothing
14	indicating
15	MR. HINNEFELD: There was nothing
16	indicating exposure.
17	MR. SIEBERT: Correct, specific,
18	yes.
19	MR. HINNEFELD: So it was just the
20	annual bioassay.
21	DR. MAURO: That basic philosophy
22	or strategy is reasonable. That is, let the

occupation and its exposure history speak to the analyst. And then a judgment is made by the analyst and puts down in his report the rationale for picking whether it is going to be episodic intake or chronic.

MR. HINNEFELD: Right.

DR. MAURO: I don't know if this is a generic issue. I think that is agreed that that is the reasonable way to come at the problem. Now, if it turns out, though, that when that judgment is made, it makes a substantive difference to this particular case, well, then we have something that is of importance.

MR. HINNEFELD: Yes.

DR. MAURO: Now, you are saying that it really didn't make a substantive difference. What I am saying is I guess leaving it open-ended to a degree to allow the analysts to use judgment, as opposed to some, let's say, strict hard and fast rule, you shall always use chronic, something along

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1 those lines. So I guess my sense is that it 2 makes sense to leave the analysts with a 3 4 degree of discretion as long as when he exercises that discretion, he documents it. 5 CHAIRMAN GRIFFON: He documents 6 7 I think that's been one of our 8 frustrations, yes. DR. MAURO: And also demonstrate 9 10 that by going the other route wouldn't flip the conclusion. I think it is important to 11 recognize how important that discretion is. 12 13 Now, in this case, what I am hearing is that it really wouldn't change 14 15 anything whether you went from chronic to 16 acute or not. Is that what --17 MR. FARVER: Correct. 18 DR. MAURO: Yes. 19 MEMBER CLAWSON: You know, I've got kind of a write-up on this. 20 I think it was Doug's response that said exactly what you 21

guys are, stand by our initial finding.

1	recognize that in the event of the assumption
2	uranium dose or triple chance in the total
3	dose is small, we would not affect the outcome
4	of this case. However, we urge NIOSH to use
5	caution when assuming chronic intake over the
6	employment period. Consider the EE job
7	function, if possible, as a single or multiple
8	acute intake.
9	That is what you sent back on that
10	one. And this is basically what we are
11	saying. We have got to have an avenue to be
12	able to make this judgment, also so that we
13	see in the case, don't we?
14	CHAIRMAN GRIFFON: Yes, which does
15	make a little sense with the security guard
16	function if you would expect it is probably
17	more likely that
18	MR. HINNEFELD: Episodic.
19	CHAIRMAN GRIFFON: Episodic is
20	more likely.
21	MR. HINNEFELD: It is more likely.
22	CHAIRMAN GRIFFON: You could have

1 walked into something at one time or a couple of times or whatever, --2 3 MR. HINNEFELD: Yes, yes. 4 CHAIRMAN GRIFFON: -- as opposed 5 to the routine steady chronic, yes. So I guess that was your point, Doug. 6 7 MR. FARVER: Yes. How do you make that determination --8 9 CHAIRMAN GRIFFON: Right. 10 MR. FARVER: -- between chronic or acute, especially when you have a job position 11 as this, where he is in and out of different 12 13 facilities. 14 CHAIRMAN GRIFFON: Right. If I remember right, 15 MR. SIEBERT: 16 this one was where the samples that he had to base this on were positive and slightly 17 increasing. I think that was part of the 18 19 thought process that -- well, if they were slightly increasing over time, chronic could 20 be fitting, although I can see both sides of 21

It is usually an internal dosimetry

1	thing. I can see both sides of it, yes.
2	MR. FARVER: Yes, but how do you
3	make that determination?
4	MR. HINNEFELD: Well, we will
5	check and see. I will have to check and see
6	what kind of guidance is available or what
7	kind of guidance might be possible even.
8	DR. MAURO: I think the only time
9	we really had a strong disagreement in a
10	situation like this is when you assume the
11	intake occurred the day before the bioassay
12	occurred.
13	MR. HINNEFELD: Yes.
14	DR. MAURO: And unless you knew
15	that, that really was the case
16	MR. HINNEFELD: Right.
17	DR. MAURO: because we have
18	seen those. That would tend to minimize the
19	burden of the work. So in a case like this,
20	where that judgment has to be made, you know,
21	I guess I feel as if as long as it is
22	explained, it sounds like you went with

1 chronic, but an argument could be made, well, you know, perhaps acute would be better. 2 In this particular case, it really 3 didn't change anything. 4 Well, security 5 MEMBER CLAWSON: guards are an interesting one because each one 6 7 of the sites is going to be a little bit different. I know in our case, a lot of times 8 9 when we have had an issue, a problem that has 10 arisen, we have left. And they check us for it, but they actually position the quards. 11 In one our instances, we forgot to 12 13 involve them in the bioassay program. All of us were checked, but none of them were. And 14 15 they were just outside the door because they 16 had controlled access. So, you know, each one of these 17 18 has their own little nuance in what is going 19 to be --DR. MAURO: Well, in your case, 20 would you say your security guard would likely 21 represent a chronic exposure situation because 22

of the nature of his job, as opposed to acute? 1 MEMBER CLAWSON: That one would 2 have been chronic or acute, I guess. 3 4 come in and out. And a lot of times they have to come into situations where we have to leave 5 something unattended --6 7 DR. MAURO: Okay. MEMBER CLAWSON: -- and back and 8 9 forth, each one. That is why I am saying, 10 especially with a security guard, that we tried to do these by job categories. But a 11 12 lot of them come into things that were going 13 out. MR. SIEBERT: And another thing 14 15 with this one is when we looked at the acute 16 numbers, which, you know, we looked at Doug's numbers, they are generally three to five 17 18 times higher than what we used as the largest 19 calculated uranium intakes that have ever been at the site. 20 So that is also kind of another 21

indicator that your security guard problem

1	isn't the guy who got three or four times
2	higher than the documented largest intake at
3	the site,
4	CHAIRMAN GRIFFON: Right, right,
5	right.
6	MR. SIEBERT: although that's
7	another thing that could be documented in the
8	
9	CHAIRMAN GRIFFON: I think that's
LO	part of the problem is the documentation.
L1	DR. MAURO: You've got to tell the
L2	story.
L3	CHAIRMAN GRIFFON: Yes, yes.
L4	DR. MAURO: That's always a help.
L5	CHAIRMAN GRIFFON: Yes, yes.
L6	MR. FARVER: We did respond.
L7	CHAIRMAN GRIFFON: Right. Okay.
L8	MR. FARVER: I'll turn it back to
L9	you so you can just read it.
20	MR. HINNEFELD: Oh, we're done
21	talking about it.
22	MR. FARVER: Basically NIOSH did

1	send a response. And they went, and they did
2	work different scenarios for the full
۷	work different scenarios for the full
3	employment period, for acute intakes. And
4	they present a table of their results.
5	And you can see from the table the
6	doses are all over the place. It could be
7	anything from 19.6 rem to 150 rem.
8	DR. MAURO: But even the high-end
9	one doesn't flip it?
10	MR. FARVER: Let's see what they
11	say. It changes the POC from like 35 to 38.
12	It's a matter of process.
13	DR. MAURO: Yes, process.
14	CHAIRMAN GRIFFON: But I am not
15	sure that we have anything more to do on the
16	general. I mean, we have made our comments on
17	this, right, that we believe that the how, the
18	selection process should be better documented
19	or explained.
20	And I don't know to what extent it
21	is in any TIB, but I think I agree with John
22	that it shouldn't be prescriptive. But, you

1	know, is there some guideline?
2	This goes back to my other
3	question, too, of the site-specific guideline
4	that they used at the time. I know Savannah
5	River has some site guides. And if that was
6	included in the case file, you know, that may
7	or may not
8	MR. SIEBERT: That's not a site
9	guide thing, but I see what you are saying.
10	CHAIRMAN GRIFFON: Yes, yes, yes.
11	But I think I agree with John. We could
12	probably try to close this finding and just
13	MR. HINNEFELD: Well, I will just
14	for my own curiosity and for edification,
15	future meetings, try to figure out if there is
16	guidance out there and what kind of thought
17	process goes into it. I mean, did we think
18	all of this ahead of time or sometimes paint
19	this stuff after the fact.
20	DR. MAURO: When we have a
21	circumstance like this, where we agree that

the issue is resolved as applied to this

particular case but we also agree around the table that there will be a benefit from a more thorough development of the rationale on these kinds of decisions, how does that come home to roost, so to speak, that somehow we make sure that, in fact, does happen?

You know, this is one of those we can all agree around the table, yes, it is a good idea, I think we should do that, but then later on is there a way in which feedback, for example -- yes, we have implemented that and this is the way in which we have done it.

We have made it a part of an OTIB.

We have maybe supplemented one of your

internal dosimetry OTIBs that we'll talk

about. I know 53, whichever there might --

MR. SIEBERT: Sixty.

DR. MAURO: Yes. And that doesn't necessarily have to be done right away, but perhaps the next go-around there is a home for this kind of language. And that would be at least a way that we could all agree that yes,

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1	we have found a vehicle to sort of memorialize
2	this agreement.
3	MR. FARVER: Is there any document
4	on how you determine between a chronic or
5	multiple acutes?
6	MR. HINNEFELD: Well, the logical
7	place for it would be in the internal
8	CHAIRMAN GRIFFON: Internal, yes.
9	MR. HINNEFELD: TIB 60, which
LO	is
.1	MR. FARVER: I don't remember
L2	seeing something like that.
L3	MR. SIEBERT: I believe we're
L4	updating it at the moment.
L5	MR. HINNEFELD: There you go.
L6	MR. SIEBERT: I have a feeling Liz
-7	suddenly at her desk went
-8	DR. MAURO: Not only that. I
.9	think maybe Wanda knows what is coming. It is
20	heading over to transfer to TIB 60. But that
21	would be the logical thing to do.
22	CHAIRMAN GRIFFON: But I do agree

1	with John that we don't want to lose this.
2	DR. MAURO: We don't want to lose
3	it.
4	CHAIRMAN GRIFFON: This really is
5	the age-old question here.
6	MR. HINNEFELD: Well, I can report
7	back to you this afternoon, after I find
8	something out, what's in the system
9	CHAIRMAN GRIFFON: Okay.
10	MR. HINNEFELD: what we think
11	is an avenue to help out here if there is an
12	avenue that can help out. It sounds like
13	there is one to me.
14	And so if there is an avenue, we
15	can find out and what kind of avenue, what is
16	best for that, because sitting here today, it
17	seemed like OTIB 60 would be that may not
18	you know, I don't want to say decide today
19	that is how it is going to happen. You know,
20	there are a lot more people a lot smarter than
21	me about what goes on in this process.

MEMBER MUNN: Stu, I can barely

1	hear you.
2	MR. HINNEFELD: I am sorry. I was
3	sitting back and mumbling. I will try to talk
4	into the microphone.
5	MEMBER MUNN: No. That is all
6	right. My line is not very loud, and I don't
7	know whether it has something to do with my
8	specific connection or whether it has
9	something to do with the equipment that you
10	have there.
11	I am hearing you folks but not as
12	clearly as I would like, clearly not with the
13	volume that I would like. I don't know if it
14	is possible to do anything there.
15	MR. HINNEFELD: Can we just blame
16	that on the anesthesia?
17	MEMBER MUNN: I would like to
18	blame it on the anesthesia, but,
19	unfortunately, I was on yesterday and didn't
20	see a problem.
21	MR. KATZ: Nancy, can you hear us
22	well?

1	MS. ADAMS: Yes.
2	MR. KATZ: Aha.
3	MEMBER MUNN: Perhaps it's just my
4	connection.
5	MS. ADAMS: Yesterday in and out.
6	There was some in and out. But today I can
7	hear you fine.
8	MEMBER MUNN: Well, it is
9	individual lines, I guess, Nancy.
10	CHAIRMAN GRIFFON: We will try to
11	make sure we are all near the microphones,
12	too. That is always a problem.
13	MEMBER MUNN: I am particularly
14	sensitive since I heard John say my name. And
15	I think it had something to do with another
16	work group or something.
17	CHAIRMAN GRIFFON: Not to worry,
18	Wanda. It was nothing. It was just assigning
19	more work to the procedures work group.
20	MEMBER MUNN: But this is not the
21	first time that this kind of issue has come up

before us. And it might be wise for us to

consider. I shudder to say this, but it would be a relatively small document.

A separate matrix that had existed on only items of this kind that have been closed in terms of technical issue but still have some potential administrative issues that we wanted to track we could -- we have a few of those, I think, previous matrices, do we not?

CHAIRMAN GRIFFON: On this one, I think I am going to let Stu do what he indicated, which is to look back and see the process because if it is, in fact, going to be addressed in the internal dose procedure, you know, in other words, investigate to see if there are any procedures or documents that currently have the NIOSH approach outlined. And if that is the case, you can tell us that. And if they are being revised, then we can push it over to the procedures review committee. That way we won't lose the general sort of concern.

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I think for this case, we have kind of closed it out. But I have left a little highlighted thing, saying NIOSH will investigate, you know, general guidelines, what they have in terms of general guidelines for this kind of instance.

MEMBER MUNN: It's going to be -well, Stu will have to identify what the
procedure is, what the thing is there but
okay.

CHAIRMAN GRIFFON: Yes, yes. All right. So I am moving on to 114.5 now. It's the next one I had. Oh, and it says no further action.

The reason that is highlighted, I wanted to make sure that I captured the response correctly from our notes that people have from the last meeting. That must be the reason I left it highlighted. I have NIOSH and SC&A agreeing, but I wanted to make sure I wasn't misstating something there.

114.5.

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1	MR. HINNEFELD: I guess I must
2	agree with that because I don't have a note in
3	my notes about that one.
4	MR. FARVER: I don't either.
5	CHAIRMAN GRIFFON: All right.
6	MR. FARVER: Just to tell you,
7	this has to do with the CATI information and
8	our view they didn't consider all the CATI
9	information. I think we just agreed that they
10	probably should have done a little better job
11	of including it.
12	CHAIRMAN GRIFFON: Yes. Okay. I
13	guess I just wanted to make sure that NIOSH
14	agreed with that. All right.
15	Scanning down to 118.1
16	MR. FARVER: This was a question
17	about the response of some dosimeters. It's
18	a dual film dosimeter, and when you get up
19	above seven rem or so
20	CHAIRMAN GRIFFON: Right, right.
21	MR. FARVER: how does it
22	behave?

1	CHAIRMAN GRIFFON: I don't know.
2	In my note there, it doesn't specifically give
3	NIOSH an action on that, but it sort of leaves
4	it hanging out there that you still have
5	concern about it. Yes.
6	MR. HINNEFELD: I have in my note
7	that's an active item.
8	CHAIRMAN GRIFFON: Yes, yes.
9	MR. HINNEFELD: I had almost no
10	time to prepare for this meeting. So I don't
11	know that I have received anything on this.
12	CHAIRMAN GRIFFON: So I'll put it
13	as an active item from NIOSH. Is that fair,
14	Stu, or are you still
15	MR. HINNEFELD: Yes.
16	CHAIRMAN GRIFFON: Okay.
17	MR. HINNEFELD: Yes, that's fair.
18	If in fact, I may have received something
19	from the contractor
20	CHAIRMAN GRIFFON: Okay.
21	MR. HINNEFELD: but that
22	doesn't affect this. But that's correct. It

1	is still active.
2	CHAIRMAN GRIFFON: There's only
3	going to be a few. So we're really narrowing
4	it down here. 118.6, this says both to
5	further review, NIOSH and SC&A.
6	MR. FARVER: My notes say, review.
7	Send in the runs to Stu, and then on 12/8, to
8	review again, and I did that, and I marked
9	that, okay. So that means I reviewed what
LO	they did, and I am okay with what they did.
L1	CHAIRMAN GRIFFON: What did can
L2	you fill us in on sort of
L3	MR. FARVER: I think I know this
L4	case. I believe this is an Idaho RaLa
L5	incident. And there was iodine. And there was
L6	questions about how the bioassay was
L7	interpreted. And this has been going on for
L8	quite some time going back and forth.
L9	CHAIRMAN GRIFFON: Yes.
20	MR. FARVER: And I think we
21	finally looked at it. You know, they sent us

their files, and we agreed that that's an okay

1 way to handle the incident. That's the short 2 story. CHAIRMAN GRIFFON: I was hoping to 3 4 have a little more information on the story 5 there, but do you have --MS. BEHLING: This is Kathy. 6 7 think that this was maybe the case where there were several bioassay files, included in this 8 case, and one was considered a secondary file. 9 10 And I believe when we first reviewed this case, we looked at that 11 secondary file, assumed it was what should 12 13 have been used, that it was not what was used by NIOSH. And when we reevaluated the case, 14 15 we realized that NIOSH did use the correct 16 number, and that what was handwritten on another document was different than the actual 17 bioassay records. So we had selected data off 18 19 of this secondary handwritten bioassay record, 20 which was inappropriate. And NIOSH I think reevaluated 21

based on the correct data. I believe that's

1	the case for this one.
2	CHAIRMAN GRIFFON: Yes, that seems
3	I was looking through the previous back and
4	forth, and that does seem like what happened,
5	Kathy. There was some question about which
6	sample was used.
7	Okay. I'm okay with that. If
8	anybody else has questions on it? Brad?
9	MEMBER CLAWSON: No.
10	CHAIRMAN GRIFFON: All right. So
11	that item is closed now. I have, SC&A agrees
12	with NIOSH's reevaluation, no further action.
13	118.7. Is this the same case?
14	MEMBER CLAWSON: Yes.
15	CHAIRMAN GRIFFON: Yes. And it's
16	the same issue, right? Yes. Okay. So we've
17	got the same conclusion.
18	MEMBER CLAWSON: Right.
19	CHAIRMAN GRIFFON: All right.
20	MR. FARVER: Yes.
21	CHAIRMAN GRIFFON: Okay. I have
22	the last couple here, but these might be my

1	questions more than 120.5, I have that
2	there was agreement, and then I have this
3	question about no effect on the case. I just
4	wanted to make sure that we I'm pretty sure
5	it wasn't in my notes, and I didn't want to
6	assume anything. This is 120.5.
7	MR. HINNEFELD: I didn't make a
8	note on 120.5.
9	MR. FARVER: No. I didn't either.
10	CHAIRMAN GRIFFON: Okay.
11	MR. FARVER: Because I think we
12	looked at this as just has to do with the dose
13	reconstructor normalized data that really
14	didn't need to be normalized.
15	CHAIRMAN GRIFFON: I'm sure if
16	there was an effect on the case, we would have
17	brought it up during the discussion.
18	MR. FARVER: Right.
19	CHAIRMAN GRIFFON: The same thing
20	on the last one. And that's the same case.
21	Okay. So I just want to usually when I'm
22	making my notes from the hard copy, I put that

there. And I didn't see it this time. I'm just making sure.

Okay. So we're through the sixth set. Look at that. We only have a few remaining, so next time I will do what Scott suggested. I don't know if we were online at that point, but for the next meeting, I'll try to, since we're down for the sixth and seventh set, we're going to be down to like a couple of findings. And before the meeting, I'll put down, you know, discussing items 117 point whatever.

And then we'll get this done with

-- I think I counted in my head maybe three or

four that have little things left, right? Two

to four, anyway. All right. But I will get

those out, along with the updated matrix,

before the next meeting.

Why don't we take five? Everybody get the seventh matrix together, and we'll reconvene in like five to ten minutes.

MEMBER MUNN: Thank you for having

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1	sent it.
2	CHAIRMAN GRIFFON: Okay. I'm not
3	sure what I said, but thanks, Wanda.
4	Oh, sending it? Okay.
5	MR. KATZ: Okay. I'm going to
6	just put the line on mute for five minutes.
7	MEMBER MUNN: Thanks, Ted.
8	(Whereupon, the above-entitled
9	matter went off the record at
10	10:34 a.m. and resumed at 10:46
11	a.m.)
12	MR. KATZ: We are back, folks on
13	the phone. Wanda, are you there?
14	MEMBER MUNN: Yes, I am.
15	MR. KATZ: And Kathy, do we have
16	you again?
17	MS. BEHLING: Yes, you do. I'm
18	here.
19	MR. KATZ: Great.
20	CHAIRMAN GRIFFON: All right.
21	We're moving right along. We're going to move
22	on to the seventh set of cases. And we have

1	the first one, had an action items here,
2	121.1, NIOSH will evaluate the use of OTIB-
3	0070 and TBD 6000 in place of the approach
4	used in this case.
5	MR. HINNEFELD: I do have that in
6	my notes.
7	CHAIRMAN GRIFFON: You said you
8	have a response to that, Stu, or
9	MR. HINNEFELD: No, I don't have a
10	response. I have notes.
11	CHAIRMAN GRIFFON: Okay.
12	DR. MAURO: Let me I can help
13	out a little bit. This is Aliquippa Forge.
14	The approach that was taken to do the external
15	dose is based on a radiological survey in 1978
16	taken as part of the FUSRAP characterization
17	program.
18	In the external radiation field,
19	they have some numbers, and you end up using
20	the median dose for 1978 with distribution,
21	and assigning that as the external dose to a

guy who worked there in 1950.

Now the problem with that is you've got a 28-year time spread. So your recourse is -- well, the thing we suggested is -- that was the problem. Second, the worker turned out to be a guy who shovels briquettes into the furnace.

So if anybody is going to get, you know, both from an internal and an external point of view, conceptually the problem is this. You got this big time spread. You really can't use the 1978 data to apply to a guy in 1950.

On top of that, even if you have some good generic information for the 1950s, this guy's job was a nasty job. He was shoveling briquettes into a furnace. So I think that your response, that is, that we'll take a look at OTIB-0070, which is the residual period, 1950 on for Aliquippa Forge, no operations. But it's right after the operations.

CHAIRMAN GRIFFON: Right, right.

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1	DR. MAURO: So 1f you go I
2	would say there are several scenarios in OTIB-
3	0070 which might fit this well. And that
4	might be your strategy. Or you may decide,
5	like one of the things we suggested, go with
6	the upper 95th percentile in your FUSRAP data.
7	I would prefer one of the better scenarios at
8	70.
9	MR. HINNEFELD: I've got the
10	notes.
11	CHAIRMAN GRIFFON: We'll leave it
12	on NIOSH's action.
13	MR. HINNEFELD: Like I said, I may
14	even have something from the contractor on it,
15	but I haven't distributed them.
16	CHAIRMAN GRIFFON: Okay. And then
17	I'm thinking the next one is the same. It
18	looks like 121.2 it's the same case, same
19	MR. HINNEFELD: Yes.
20	CHAIRMAN GRIFFON: The only thing
21	I'll ask is bear with me, because I just want
22	to update this matrix live. It's so much

1	easier if I have it done.
2	DR. MAURO: Yes. The problem, the
3	next one is different. And in concept here,
4	let me explain
5	CHAIRMAN GRIFFON: Which one are
6	you on now?
7	DR. MAURO: I'm on the second one.
8	In other words well, I'm looking at the
9	strength. The one I just talked about now is
LO	external exposure.
L1	CHAIRMAN GRIFFON: 121.2?
L2	DR. MAURO: Let me see. 121.2.
L3	Let's see where we go to 2. Yes.
L4	MR. HINNEFELD: It sounds like
L5	121.2.
L6	DR. MAURO: No, I'm sorry. I'm in
L7	122 already. No, I'm sorry. 121.1, it's the
L8	same problem. So in other words, whether
L9	we're talking internal, any of the issues
20	associated with 121.1 have to do with using
21	1978 data, whether it's external or internal,

to apply to a 1950 worker.

1	And OTIB-0070, a newer document,
2	gives you a vehicle to come at this problem.
3	How you select to use OTIB-0070, because you
4	have a lot of options, is really going to be
5	at play eventually. That's all I had on
6	121.1.
7	CHAIRMAN GRIFFON: Okay. And
8	that's the same for 121.2, I think.
9	DR. MAURO: No. One twenty-two is
10	different. That is Simonds Saw.
11	CHAIRMAN GRIFFON: No, not 122.
12	DR. MAURO: Oh, I'm sorry.
13	CHAIRMAN GRIFFON: 121.2.
14	DR. MAURO: I keep doing that.
15	CHAIRMAN GRIFFON: 121.3, though,
16	I have a different note here.
17	DR. MAURO: Okay.
18	CHAIRMAN GRIFFON: It says, SC&A
19	to review NIOSH response.
20	DR. MAURO: Okay.
21	CHAIRMAN GRIFFON: And maybe my
22	note is wrong, but that is a different thing,

1	it looks to me.
2	MR. FARVER: It has to do with the
3	internal dose, John.
4	DR. MAURO: Okay. Oh, this might
5	go back to the re-suspension factor business
6	because this is all residual period. I
7	happened to look at the if you give me a
8	minute?
9	CHAIRMAN GRIFFON: Okay.
LO	DR. MAURO: This is 121.3. Let me
L1	go back to my report.
L2	CHAIRMAN GRIFFON: Apparently last
L3	time
L4	MR. FARVER: The intake values
L5	that they used were derived for residual
L6	contamination characterization data collected
L7	in 1992 and '93. SC&A believed 1992-93 data
L8	may not be applicable to the period from 1950
L9	to 1978.
20	CHAIRMAN GRIFFON: But we had that
21	before, right?
22	MR. HINNEFELD: I mean,

1	realistically, I mean, OTIB-0070 would address
2	the internal as well.
3	DR. MAURO: Yes. It would do
4	both.
5	MR. HINNEFELD: I mean,
6	realistically the action that we are going to
7	take for 1 and 2 by just extending it into the
8	internal dose would be in another evaluation.
9	CHAIRMAN GRIFFON: But in this
10	case, didn't you have site-specific data? I
11	mean, you don't have
12	MR. HINNEFELD: There is
13	site-specific data here.
14	CHAIRMAN GRIFFON: That's right.
15	Yes.
16	MR. HINNEFELD: There is
17	contemporary. I mean, there was
18	decontamination, 1949 data. There is 1949
19	survey.
20	DR. MAURO: And 70 will give you
21	the path forward.
22	MR. HINNEFELD: And, see, that's

1	why I am saying since you've got 1949 data and
2	now there is TIB 70, we could go back. Rather
3	than justifying the use of the '74 numbers,
4	which is essentially what this does, our
5	response is simply
6	DR. MAURO: Tried to, right.
7	MR. HINNEFELD: tries to
8	justify these 1974 numbers or '78 numbers,
9	whatever they were.
10	DR. MAURO: Yes.
11	MR. HINNEFELD: Rather than try to
12	justify those, since we have the data from 49,
13	TIB
14	DR. MAURO: Seventy.
15	MR. HINNEFELD: 70, we could
16	then just by extending the 1 and 2, what we're
17	going to do with 1 and 2 in the internal, we
1.0	
18	can deal with this one as well and kind of
19	can deal with this one as well and kind of illustrate.
19	illustrate.

1	position here. Here you've got a guy who
2	worked in the early years, right after the
3	termination of operations, '49.
4	You've got data characterizing
5	operations. Pick up right from there, whether
6	it's internal or external. And you say, okay.
7	What is going to happen in 1950? How many
8	years he goes on after that.
9	MR. HINNEFELD: Yes.
10	DR. MAURO: It may not be many.
11	And the only issue we had with your OTIB-0070
12	is how you develop your slope. You know you
13	have this much airborne activity as soon as
14	the operations stop. You start there. Now
15	it's going to start to go down.
16	Now, you used I think one percent
17	per year.
18	MR. HINNEFELD: No it's more than
19	that. It's faster than that.
20	DR. MAURO: One percent per day?
21	MR. HINNEFELD: It might be one
22	percent per day.
l l	

1	DR. MAURO: Yes. We had a problem
2	with that because if it's one percent per day,
3	you could imagine it's gone. In a year, it's
4	gone.
5	MR. HINNEFELD: Yes. I don't
6	know. I thought it was
7	MR. SIEBERT: There was a first
8	year reduction. And then after the second or
9	third year, then
10	MR. HINNEFELD: There are various
11	techniques. If you have data at two points,
12	which in this case we apparently do, we have
13	1949, we have 1978 data, I think what TBD 7
14	tells you is you set the two data points.
15	DR. MAURO: Yes, as long as there
16	was no decontamination between the two
17	periods.
18	MR. HINNEFELD: Yes.
19	DR. MAURO: That was our criticism
20	when you applied on OTIB-0070. You applied it
21	in another case. That's how we were reviewing

it.

1	CHAIRMAN GRIFFON: Then the other
2	case, their site-specific question might be
3	the data itself, you know. In other words,
4	the 1978 data, it's a decon survey. How
5	robust is that data set? And how useful is it
6	for extrapolation?
7	MR. HINNEFELD: It was probably
8	FUSRAP, right? It's a FUSRAP survey probably
9	in the condition since we got here. We've got
10	to do something here.
11	DR. MAURO: If you have
12	comprehensive pre-cleanup.
13	MR. HINNEFELD: Yes.
14	DR. MAURO: FUSRAP data, '78,
15	giving you surface activity, maybe some
16	airborne activity. And you have your 1949,
17	you know, these are the levels we had airborne
18	in our surfaces. Now you have a pretty robust
19	way to do the slope.
20	CHAIRMAN GRIFFON: If you have a
21	comprehensive FUSRAP survey for any site,

I would like to see it.

1	DR. MAURO: You would like to see
2	it?
3	(Laughter.)
4	CHAIRMAN GRIFFON: I mean, their
5	goal was to see, do we need cleanup or not?
6	So they kind of stopped when
7	MR. HINNEFELD: They didn't really
8	do it.
9	CHAIRMAN GRIFFON: Right.
LO	MR. HINNEFELD: In fact
L1	CHAIRMAN GRIFFON: And
L2	comprehensive is not
L3	MR. HINNEFELD: That kind of
L4	information would be available in the actual
L5	FUSRAP docket probably, if it did exist.
L6	CHAIRMAN GRIFFON: Yes. Once they
L7	saw that they had required a cleanup
L8	MR. HINNEFELD: That they required
L9	cleanup.
20	CHAIRMAN GRIFFON: why bother
21	going much further comprehensively?
	I and the second

1	suit in discovery
2	CHAIRMAN GRIFFON: That's why
3	you've got to be careful how you use that
4	data, I think.
5	MR. HINNEFELD: Yes. There might
6	be additional. And, again, like I said in
7	this case, we've got before and after data.
8	I mean, before the
9	CHAIRMAN GRIFFON: You have
LO	something there.
L1	MR. HINNEFELD: We have
L2	operational period data and operational
L3	period. Then you have got something at both
L4	ends. There should be something that I
L5	mean, that would at least get this finding
L6	fixed in terms of this finding and would put
L7	the debate in the TBD 70 debate if there's a
L8	TBD 70 debate in terms of that would be your
L9	part.
20	The way you are using this TBD 70
21	is that initial FUSRAP survey is really a good
22	enough survey or should you be looking at the

1	extended condition, which they may have done
2	later.
3	DR. MAURO: Yes. I recall there
4	were particularly five or six different
5	alternative approaches in TBD 70 depending on
6	the nature of the data you have.
7	MR. HINNEFELD: Yes.
8	DR. MAURO: And you have to choose
9	which one is best. And I recall one of the
LO	options was when you don't have back-end data
L1	and you have to assign a slope to your
L2	front-end data, we had a problem with that.
L3	MR. HINNEFELD: Okay. Yes.
L4	CHAIRMAN GRIFFON: Okay. So I
L5	have the action. I captured the action now
L6	that NIOSH is going to consider TIB 70 as
L7	pertains to this case basically.
L8	Moving forward, now we are up to
L9	122, John. Now you're on again.
20	DR. MAURO: Yes. That was it
21	through a lot of
22	CHAIRMAN GRIFFON: This says,

1	NIOSH will follow up on validity of this
2	approach for the job in question. That's
3	122.1. So we have this. What was the job?
4	DR. MAURO: This is the guy who
5	was a shoveler.
6	CHAIRMAN GRIFFON: Oh, okay.
7	DR. MAURO: Yes. I remember this
8	story. Yes.
9	CHAIRMAN GRIFFON: This is Simonds
LO	Saw?
L1	DR. MAURO: This is Simonds Saw.
L2	This is a worker who worked at the furnace.
L3	His job was to heat up the billets, heat them
L4	up so they could go through rolling.
L5	There is a generic Simonds Saw
L6	matrix that was applied to this person. And
L7	I believe you applied the methodology
L8	correctly, but you didn't take into
L9	consideration this guy's job. In other words,
20	it turns out he was a pretty unusual guy
21	because of his job.

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One, with regard to external

exposure during operations now, -- let's talk during operations -- your generic approach is the person is standing close to a rod, 3 and a half hours a day close to a rod, and 3 and a half hours close to a billet. In his case, he would only be next to billets, which effectively increases his dose, external dose, by about 40 percent.

So we believe in his case, you know, that generic approach doesn't really apply. If you were going to assume seven hours a day of external exposure up close and personal, for this person, it would have been better if it was all billets.

And it turns out the radiation field from the billet is about 40 percent higher than from a rod. So the dose could have gone up a bit on that.

That was one thing. That was the external part. The internal part had to do with the dust loadings. Now, I believe you had generic information on what the inhalation

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1	rate was for the uranium and everything else.
2	However, we felt that, rather than working
3	from the 50 percentile from this guy, because
4	of his job and we have a lot of information
5	on this when a person is a furnace
6	operator, he gets exposed to the high-end
7	continuously. I would have gone with a high
8	end of a fixed. Rather than the full
9	distribution that was centered off the 50
10	percentile, we suggested for him, he might
11	have been better off going with the upper end
12	because of his job category.
13	So those are the two, I mean
14	conceptually, the two concerns we had. And I
15	don't know the degree to which you have had
16	I will look at your matrix. You may have
17	responded. That was my concern.
18	CHAIRMAN GRIFFON: That's what I
19	was going to ask. Are these still active,
20	Stu, or did you
21	MR. HINNEFELD: Well, I don't know

what I have done. So I will have to check.

1	I sent this, I'm pretty sure, yes, to our
2	contractor a couple of weeks after this
3	meeting, the December 8 meeting. They could
4	very well have replied to me by now and I just
5	haven't managed to sort through it.
6	When they send a reply, I normally
7	like to see if I like it before I send it to
8	the Subcommittee. And so I have not done
9	that, I don't think.
10	So unless I did it prior to
11	it's a thought. We were going to meet in late
12	January.
13	CHAIRMAN GRIFFON: Yes.
14	MR. HINNEFELD: Hang on.
15	That would be my message, that
16	message going on the 23rd or something. That
17	was what I was talking about related to the
18	contract.
19	DR. MAURO: By the way, as another
20	point and I don't know from a policy point
21	of view how to do this. Bethlehem Steel is

very similar to this site, the kinds of

exposures people get. What you ended up doing with Bethlehem Steel was what I consider to be a truly bounding assumption.

Use some billet workers spent one foot away from an infinite slab, which was 2 mr per hour. You placed an upper bound. In this case you were more sophisticated. You said, well, wait a minute. We know that this guy -- we are going to assume that people are exposed to billets and rods, single ones. So what happens is that reduces the exposure.

So in a funny sort of way, it seems like you're giving a little bit more benefit to an applicant from Bethlehem Steel than you would here. There may be good reason for that because I think that these -- I mean, maybe the nature of the work in Bethlehem Steel, we had these very long rods, stacked up, which, for all intents and purposes, the geometry was like being next to an infinite slab.

While in this case the handling of

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1	the rods was one by one, one came in, we
2	heated it up. We rolled it, moved it out.
3	And so no one really is up close and personal
4	to an infinite slab. It's not apparent if
5	that is the case.
6	MR. HINNEFELD: Well, in
7	retrospect, I kind of wish we had chosen a
8	dose rate from uranium metal,
9	DR. MAURO: Yes. That's it.
10	MR. HINNEFELD: rather than
11	trying to be too site-specific and too this
12	and that.
13	DR. MAURO: It's not that much
14	different, a factor of
15	MR. HINNEFELD: It is, yes, a
16	factor of two. You've probably got it covered
17	in all of these situations.
18	and just said, okay. For these
19	places that rolled uranium or dealt with
20	uranium metal, this is a uranium metal dose
21	rate at this, this, and such and such, and
1	

based it on something, whether it be an

1	infinite slab or whether it be
2	DR. MAURO: Right.
3	MR. HINNEFELD: a stack of
4	metal, a couple of rods, or you want an array
5	of rods or an array of billets or something
6	like that. Keep it simple. Give it to
7	everybody.
8	Now, not having started with that,
9	I think that because we have an approach in
10	one site, you know, like an infinite slab, I
11	don't know that we necessarily want to tie
12	ourselves to always do it that way.
13	DR. MAURO: Sure. What is
14	MR. HINNEFELD: And so there may,
15	in fact, be some situations
16	DR. MAURO: There may be a good
17	reason here.
18	MR. HINNEFELD: where these
19	aren't going to be equitably treated.
20	DR. MAURO: There was one last
21	point on this case that was surprising to me.
22	In this CATI, he had another cancer that was

1	not in his records. His wife, I guess, they
2	interviewed, said that there was a second
3	cancer that was never credited to this person.
4	There may be good reason for that,
5	but I don't know. So that was an issue we
6	raised.
7	MR. HINNEFELD: I can tell you
8	what should have happened. We should have
9	identified that to the Department of Labor and
10	let them deal with it because we cannot do
11	that. We can only reconstruct for the cancers
12	that the Department of Labor verifies and
13	sends to us. So we cannot add a cancer.
14	So we would not get to a different
15	dose reconstruction because that was told to
16	us. We should have asked the claimant to
17	convey that information to the Department of
18	Labor.
19	CHAIRMAN GRIFFON: 122.10 says,
20	additional cancer was added by DOL in March
21	2008.

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MR. HINNEFELD: Okay.

1	CHAIRMAN GRIFFON: No further
2	action. Yes.
3	MR. HINNEFELD: Okay.
4	CHAIRMAN GRIFFON: So I think we
5	addressed that in the last minute.
6	MR. HINNEFELD: Okay. Good.
7	DR. MAURO: Oh, okay.
8	CHAIRMAN GRIFFON: So summarizing
9	for this case, I have 122.1 and 122.3 as
10	remaining follow-ups for NIOSH. And if you go
11	on down, the other ones are these white
12	papers, these other issues, a lot going to the
13	procedures committee.
14	122.7 I have no resolution there
15	and no NIOSH response, actually. We never got
16	an initial NIOSH response on this thorium
17	inhalation question.
18	MR. HINNEFELD: I guess I probably
19	still owe it to you.
20	DR. MAURO: Yes. We had a number
21	of questions on this, but, if I recall, the

thorium contribution is probably relatively

1	small in terms of the throughput.
2	But yes, we did have a number of
3	I see them here, a number of questions on
4	thorium.
5	MR. HINNEFELD: Yes. Scott
6	reminds me this will be an issue with TBD for
7	this site, you know, what do we do with that.
8	And it could very well be.
9	I would think today we might have
10	different information than we had when we
11	wrote the TBD. And we may want to just make
12	the adjustment I don't know or we may
13	have sufficient information that would support
14	the numbers. I am completely
15	CHAIRMAN GRIFFON: Stop me if you
16	see anything else, but I am up to case 125.1
17	now.
18	MR. HINNEFELD: Okay.
19	CHAIRMAN GRIFFON: Does that make
20	sense, the 84 I vaguely remember this one.
21	Doug, do you
22	MR. FARVER: I couldn't find the

1	dose
2	CHAIRMAN GRIFFON: Right.
3	MR. FARVER: for the one year.
4	CHAIRMAN GRIFFON: The one year
5	didn't appear, right?
6	MR. FARVER: And I have gone back.
7	And I looked. And what they're referring to
8	was 1984 dose. The IREP as entry number 29 in
9	the IREP input is 1948 dose if you look at the
10	IREP table.
11	MR. SIEBERT: Yes. I think that
12	was just read wrong.
13	MR. HINNEFELD: A typo there.
14	MR. SIEBERT: That's initially
15	48/84 when we were answering it. I think we
16	still owe you a response on that.
17	MEMBER MUNN: Did you say '48 or
18	'84?
19	MR. SIEBERT: I believe in the
20	response, we had thought that was the dose
21	reconstructor came back. And we were saying
22	that that was where the '84 was. And I think

1	we just it was a misread, that it was
2	actually '48. So I think I still need to
3	track this down.
4	MR. FARVER: Yes. And, as far as
5	I can tell, there is no 1984 entry in the IREP
6	table.
7	CHAIRMAN GRIFFON: Okay.
8	MR. FARVER: Let's see. To be
9	clear on that, that's for the recorded photon
10	dose. There are entries for 1984 for missed
11	photon dose.
12	CHAIRMAN GRIFFON: Okay. So
13	that's still an active action item. The next
14	one I had is 125.4, still the same case here.
15	This is regarding dose from whole body counts.
16	So I guess this dose wasn't included is what
17	you are saying, even though there is a small
18	
19	MR. FARVER: Correct. It may be a
20	small dose, but it just wasn't included. As
21	we go through these, a lot of these will come
22	down to, well, why wasn't that caught in a

1	review? And we can go through a lot of these
2	and ask that same question. And I don't know
3	what the Board or
4	CHAIRMAN GRIFFON: Well, is there
5	a level on this, Stu yes. I know. I know
6	what you are saying, Doug, but is there a
7	level on this that you consider de minimis and
8	you don't include them or
9	MR. HINNEFELD: I would say that
10	it would be very likely for a reviewer to
11	notice this and not care. I think that would
12	be very likely that, you know, we have seen
13	if this is a Hanford case, that must be is
14	that the ingestion, 136 one, 65 and 147? And
15	that's under water. It shows up in whole body
16	counts because of that.
17	MR. FARVER: Probably, yes.
18	MR. HINNEFELD: That sounds
19	familiar to me.
20	DR. MAURO: Zinc is. Sodium is
21	CHAIRMAN GRIFFON: I don't know.
22	Sodium was an issue in the water, yes.

Sodium-22 is --

MR. HINNEFELD: It could have been
-- and not knowing very much about this case,
I probably shouldn't say very much. But it
could be that it's apparent from the POC and
the dose that this is going to add officially
to it. And so this isn't going to change it.
So we're going to say okay.

I think we want to be a little careful about drawing quality program conclusions or how good is the quality program from a finding like this.

Now, if you had to draw any conclusions from other findings, you may want to draw that conclusion. But from a finding like this, where an experienced reviewer -- I mean, our guys who see these things see a ton of them. And they pretty much kind of know what is going to matter and what doesn't.

And so they may just say, you know, if I don't say okay to this, that means it's got to go back over to the contractor.

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1	It's got to get through their system. It's
2	got to put in five millirem total or whatever
3	it turns out to be, which isn't going to
4	change anything. It's not going to matter to
5	anybody. Why don't I just say okay? I mean,
6	that process has occurred.
7	MR. FARVER: Well, there were
8	three whole body counts. All of them exceeded
9	cesium-137. The DR report clearly states
10	there were no positive cesium-137, sodium-24,
11	or zinc-65 bioassays during the period.
12	MR. HINNEFELD: That is a little
13	more serious. That is clearly a flaw, a
14	mistake that should not have been there. Now,
15	those are positive counts, though, right?
16	They exceed the protection level?
17	MR. FARVER: Yes, I believe.
18	MEMBER MUNN: How is it that it
19	has been reported as a finding, that we simply
20	have NIOSH add it quickly, a significant
21	effect on dose, that it be closed?

MR. HINNEFELD: Well, we need to

1	look at it. See, I am just talking out of
2	school here.
3	CHAIRMAN GRIFFON: Yes. That is
4	what we are trying to find out, Wanda. If
5	NIOSH agrees and it doesn't have an effect on
6	the case, that is different. That is a
7	different answer, but
8	MR. HINNEFELD: I think your note
9	describes it exactly.
10	MR. FARVER: An example, in June
11	1960, cesium-137 result of 8.4 nanocuries and
12	the fallout level I mean, you could say
13	it's fallout. The fallout level is 6.8. So
14	it exceeded the fallout level and, therefore,
15	by your documents should be assessed.
16	CHAIRMAN GRIFFON: Okay. So yes.
17	I think that note still applies, right?
18	MR. HINNEFELD: Yes.
19	MR. FARVER: And there was a
20	second one that also exceeded the fallout
21	level, in '69, I believe.
22	MR HINNEFELD. Veg

1 CHAIRMAN GRIFFON: So the next one I have is 125.6. SC&A was going to review 2 this and compare it to the currently available 3 TBD. 4 5 MR. FARVER: Okay. CHAIRMAN GRIFFON: So I think it 6 7 was working from an old TBD, right? Yes. 8 125.6 we're on. 9 MR. FARVER: Yes. Let me get my 10 notes here. Okay. Let's go back to the NIOSH 11 response in the third column, May 3rd. If we go up to the first section, it says, the 12 13 guidance provided in section 5.1 is probably blah, blah, blah. The TBD author --14 15 recognized by the TBD author to be incorrect, 16 and DRs were advised that the period should also include 1947. 17 18 Now, the question comes, is that 19 notification to the DRs documented somewhere, that you told the dose reconstructors to 20

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extend that period or how would they know

that?

21

1	MR. HINNEFELD: Scott, how did
2	that
3	MR. SIEBERT: I would assume that
4	would come out in one of our weekly conference
5	calls.
6	MR. FARVER: Okay. So, even
7	though it's a change to the document, it's not
8	really documented anywhere or
9	MR. SIEBERT: Well, that would be
10	ahead of the fact that the next rev of the TBD
11	did incorporate that change.
12	MR. FARVER: Okay.
13	MR. SIEBERT: So it's a question
14	of what do you do up until the time that it's
15	officially changed in the TBD?
16	MR. FARVER: And do you need some
17	kind of documentation? I don't know how you
18	fill that gap. I would think you would at
19	least have a memo documented to hold that for
20	that period because, even though Rev 2
21	incorporated the change, the dose

reconstructor didn't use Rev 2.

1	MR. HINNEFELD: Right.
2	CHAIRMAN GRIFFON: I mean, this
3	goes back to the dose reconstruction notes
4	also, doesn't it, Scott? Would those have
5	because I know they are modified in between,
6	you know, as you go kind of.
7	MR. SIEBERT: During that time
8	period. Once again, this is the old learning
9	curve and
10	CHAIRMAN GRIFFON: Right.
11	MR. SIEBERT: how old it is
12	kind of thing.
13	CHAIRMAN GRIFFON: Right.
14	MR. SIEBERT: I can't just tell
15	you off the top of my head.
16	CHAIRMAN GRIFFON: No, no. I
17	know. I know.
18	MR. SIEBERT: Right.
19	CHAIRMAN GRIFFON: This comes up a
20	lot, as Doug says, also that if there was a
21	guideline.
22	MR. SIEBERT: In that interim

1	period.
2	CHAIRMAN GRIFFON: Right. But if
3	there were these notes that applied while the
4	case was being worked on, you know, then it's
5	easier to audit. I mean, it's easier to look
6	at and say, okay. This is what they're
7	supposed to be doing, you know, instead of
8	speculating.
9	MR. SIEBERT: Right.
10	CHAIRMAN GRIFFON: Yes.
11	MR. SIEBERT: You know, I'll check
12	back and track down what I can find.
13	CHAIRMAN GRIFFON: But I am not
14	sure what we expect back from this, Doug. I
15	mean, it's not in the case file, right? It
16	probably happened on one of your conference
17	calls in between time. And the current TBD
18	covers it. So what more action is there for
19	us to discuss?
20	MR. SIEBERT: It's more
21	CHAIRMAN GRIFFON: Other than
22	that generic issue of we would like

1	MR. SIEBERT: What can you do?
2	CHAIRMAN GRIFFON: To see a
3	document in the future cases?
4	MR. SIEBERT: Right, for this
5	specific case here.
6	CHAIRMAN GRIFFON: Yes.
7	MR. SIEBERT: And they explain
8	what they did, which is okay.
9	CHAIRMAN GRIFFON: You're okay
10	with that, right?
11	MR. SIEBERT: Sure.
12	CHAIRMAN GRIFFON: So I don't
13	think we need any more action on this case
14	particularly, but you get the general concern.
15	MR. SIEBERT: Yes. How do you
16	want to handle an interim period
17	CHAIRMAN GRIFFON: The document,
18	yes.
19	MR. SIEBERT: when you find out
20	some information?
21	CHAIRMAN GRIFFON: So I am going
22	to say I think this is closed for this case or

1	for this finding, yes. Okay.
2	Sorry. I just lost my place in
3	the document. What number was that again?
4	One twenty?
5	MR. FARVER: 5.6, 125.6.
6	CHAIRMAN GRIFFON: 125.6. Thank
7	you.
8	All right. So 125.9, we had a
9	couple of items here.
10	MR. FARVER: 125.9. This has to
11	do with information. We may not have all the
12	radiological incidents and bioassay data.
13	CHAIRMAN GRIFFON: Right.
14	MR. FARVER: There are some
15	incidents identified in the DOE files that
16	indicated that bioassay was requested on
17	certain dates, but those dates don't
18	correspond to bioassays in employees' records.
19	CHAIRMAN GRIFFON: So am I safe to
20	assume this is still an open
21	MR. HINNEFELD: Yes.
22	CHAIRMAN GRIFFON: 126.2, new case

1	here. So this a question where the TIB 2 is
2	bounding based on the it must have been for
3	the highly exposure level job. Is that what
4	you're saying, John? Yes.
5	DR. MAURO: You can see the first
6	column what he is doing.
7	CHAIRMAN GRIFFON: Right.
8	DR. MAURO: Yes. Column 3 gives a
9	nice summary of his job.
10	CHAIRMAN GRIFFON: Yes. Stu, any
11	
12	MR. HINNEFELD: I don't have any
13	updates
14	CHAIRMAN GRIFFON: Okay.
15	MR. HINNEFELD: from what your
16	note says.
17	CHAIRMAN GRIFFON: All right.
18	MR. HINNEFELD: Your note is what
19	I have.
20	CHAIRMAN GRIFFON: Right.
21	DR. MAURO: I know there were
22	circumstances of when we raised questions

1	about OTIB-002 being valid. We all agree that
2	OTIB-002 assumptions are very extreme as a way
3	to place an upper bound on internal exposure
4	when you know for sure that there is no way
5	this guy is going to be compensated. I mean,
6	that is what they intend to do.
7	I know we have raised questions on
8	OTIB-002 when it came to application to places
9	like where there was a lot of residue, thorium
10	residue. The issues I think came up at
11	Fernald, that certain workers that handled the
12	K-65 material, Mallinckrodt, where there were
13	such extreme circumstances that even OTIB-002
14	may not be bounding for the purpose of denial.
15	Is there a reason to believe that
16	this particular person worked at a facility
17	where there was not extreme? My recollection
18	is open
19	MR. HINNEFELD: Hanford.
20	DR. MAURO: It is the Hanford?
21	Yes. This is Hanford.
22	MR. HINNEFELD: I think the issue

1	here was part of this last finding we just
2	talked about was the TIB 2 input, you know,
3	the intake set, suite of intakes. So it was
4	used in a TIB 2. You've got several to choose
5	from.
6	DR. MAURO: Yes.
7	MR. HINNEFELD: You chose the
8	non-uranium reactor facility. The comment
9	was, well, they clearly had uranium at
10	Hanford. Why did you choose the non-uranium?
11	Our response is that, well, the
12	guy has a bioassay record for plutonium and
13	fission products but not for uranium. So it
14	indicated he wasn't in the uranium building.
15	So for that, the natural answer is if you've
16	got a bioassay record, why did you use OTIB-
17	002? And there is also a place in the CATI
18	that apparently wasn't completely addressed.
19	Yes. That's what my note says.
20	We just still owe a response.
21	CHAIRMAN GRIFFON: Okay. How
22	about 127.1? I have on this one, it seems to

1	be I have this highlighted part, additional
2	response. I'm not sure why that is in there.
3	MR. FARVER: 127.1 refers you
4	later on to the CATI report section, section
5	4, which would be finding 127.11, I believe.
6	If you're not confused, I'll try harder. It
7	has to do with work location.
8	MR. HINNEFELD: Yes. The note I
9	made from the December meeting was that we do
10	have the action to provide the additional
11	information that we relied on in our response,
12	where we say that the individual, while they
13	worked in the 100 area, worked in building
14	108, which is not a reactor building.
15	So apparently this is a neutron
16	question or something. I don't know.
17	MEMBER MUNN: Apparently it's a
18	what, Stu?
19	MR. HINNEFELD: Yes.
20	MEMBER MUNN: Yes. It's a what?
21	MR. HINNEFELD: What is it?
22	MEMBER MUNN: What is the

1	question?
2	MR. HINNEFELD: Well, I don't know
3	what the finding is, but what we said was that
4	this individual we found information that
5	this person's assignment, his work location in
6	the 100 area was in building 108. I don't
7	know what that building is.
8	CHAIRMAN GRIFFON: Which is not a
9	reactor building
10	MR. SIEBERT: It's a biology lab.
11	MR. HINNEFELD: Oh, it's biology
12	lab. So it wasn't a reactor building.
13	CHAIRMAN GRIFFON: We couldn't
14	hear you there, Wanda.
15	MEMBER MUNN: I said 105 was the
16	reactor building in that particular part of
17	the 100 area.
18	MR. HINNEFELD: Okay.
19	MR. KATZ: Thanks, Wanda. Wanda,
20	whatever you just did makes it much easier for
21	us to hear you.

MEMBER MUNN: Well, I picked up a

1	handset and put it up against my ear, but it's
2	almost impossible for me to sit here doing
3	that in that position.
4	MR. KATZ: I don't mean for you
5	for listening but for hearing you when you
6	speak up, that would be great.
7	CHAIRMAN GRIFFON: Yes. When you
8	talk, that is great.
9	MEMBER MUNN: Yes. I understand.
10	Even though I have great faith in this tiny
11	little microphone hidden in my telephone, it
12	clearly pleases me more than it pleases the
13	recipients.
14	CHAIRMAN GRIFFON: All right. You
15	were going to
16	MR. HINNEFELD: So our action on
17	127.1 from my last note was to provide that.
18	You know, in other words, what is the evidence
19	we use to include the person working in 108?
20	But there are also some CATI. There are
21	several more here on 127, I think.

MR. FARVER: I think so, too. It

1	started off where the DR talks about the
2	employee working in the 100 area and 300 areas
3	and then the NIOSH assumes, for this DR, we
4	will just assume it is all in the 300 area.
5	That is where it leads on to, well, maybe that
6	is not what your already work location, you
7	didn't consider the 100 area. And it just
8	went on from there.
9	CHAIRMAN GRIFFON: Which one,
10	127.1?
11	MR. SIEBERT: 127.1. 108 is the
12	biology lab, as opposed to the 100 area
13	generic. I don't know if we ever got that.
14	MR. FARVER: I don't know. I
15	don't see that here.
16	MR. SIEBERT: Oh, I'll get back to
17	you, then.
18	CHAIRMAN GRIFFON: Yes. I think
19	that's the essence of the question as to you
20	stated that
21	MR. HINNEFELD: Yes.
22	CHAIRMAN GRIFFON: And it goes

1	down. You're right. It comes up in 127.5
2	again, same sort of question, I think. Is
3	that right?
4	MR. HINNEFELD: It looks like it.
5	CHAIRMAN GRIFFON: And I am
6	looking further down. 127.8 and 127.10.
7	That's my note, I think, and I think you
8	provided a response, but maybe we were both
9	working from different matrices or something.
LO	I don't know. I don't have a response or oral
L1	resolution for those.
L2	MR. HINNEFELD: Okay. I think
L3	there is a response somewhere. And so I will
L4	get that out. But there may be some of that
L5	additional info as well. Yes. I'll
L6	CHAIRMAN GRIFFON: Okay. Because
L7	I don't know if we have discussed do you
- /	
	have any notes on those Doug, that we have
L8	have any notes on those Doug, that we have discussed the resolution on those or
L8 L9	
L8 L9	discussed the resolution on those or

1	MR. FARVER: Nope. I have those
2	as being blank.
3	CHAIRMAN GRIFFON: Yes. Yes. So
4	all right. I will leave that highlighted in
5	there that you need to resend the response.
6	I don't know what happened to the response,
7	but I thought it was
8	MR. HINNEFELD: Maybe I didn't
9	send it.
10	CHAIRMAN GRIFFON: And they are on
11	my
12	MR. HINNEFELD: There was one that
13	was written, and I didn't send it.
14	CHAIRMAN GRIFFON: Yes. But
15	either way, that's fine. Okay.
16	I'm down to moving right along.
17	Nothing on 128, I didn't have. 129.5 is the
18	next thing I have. So this is another one of
19	SC&A comparing the results or NIOSH will
20	compare whole body count results versus what
21	using the TIB methodology.
22	MR. HINNEFELD: They did before

1	versus
2	CHAIRMAN GRIFFON: Yes, right. Is
3	there an outstanding one?
4	MR. HINNEFELD: Yes. We still owe
5	you what we owe you.
6	CHAIRMAN GRIFFON: Okay. This is
7	a question under your analysis data versus the
8	work history data. You were going to follow
9	up on the
10	MR. HINNEFELD: Yes, still have
11	that.
12	CHAIRMAN GRIFFON: I am updating
13	these files. So I will also send these right
14	out.
15	MR. HINNEFELD: Okay.
16	CHAIRMAN GRIFFON: That way, you
17	know, because I think the last time I sent my
18	revised matrices out, like the day before,
19	that close to our meeting.
20	On this one, if it's okay, I mean,
21	on the sixth matrix, there were only a few
22	items. And I'll list those separately in the

1	e-mail to prompt people. But for this one, I
2	will highlight. And I think that works pretty
3	well. You can find them pretty easily, you
4	know.
5	I'm down to 131.4.
6	MR. FARVER: Okay. And that was
7	to us to review. And I looked at their
8	response. And basically I couldn't figure out
9	how they calculated their doses where the
10	calculation is based on IG001 since OTIB-0017
11	wasn't around.
12	CHAIRMAN GRIFFON: What did they
13	send you?
14	MR. FARVER: Well, I looked at
15	their response. And they have it how it was
16	calculated. I could not determine how it was
17	calculated from their response. It probably
18	was not using OTIB-0017 since that was not
19	MR. SIEBERT: It wasn't available
20	yet, right.
21	CHAIRMAN GRIFFON: Right, right.
22	MR. SIEBERT: Basically a factor

1	of .94 was used, as opposed to a .3.
2	MR. FARVER: So I would appreciate
3	a sample calculation using the employee's data
4	for a year. That will educate me.
5	CHAIRMAN GRIFFON: Okay. So NIOSH
6	will provide a sample calculation. Okay.
7	That's fine.
8	Okay. 131.6. This is a TIB 54
9	whole body count versus TIB 54. Is that the
10	right TIB number?
11	MR. HINNEFELD: Yes.
12	CHAIRMAN GRIFFON: Fifty-three is
13	different. Didn't I have 53 before? Anyway.
14	All right. As long as you know these numbers.
15	Okay. So this remains as an item.
16	DR. MAURO: OTIB-0054 was
17	reviewed. I recall being involved in that
18	review. And it received a favorable review.
19	I believe it went before the procedures
20	workgroup.
21	It will be on the record in the
22	procedures workgroup, but I think that I

1	remember when I read the original review
2	performed by Joyce Lipsztein, she found the
3	basic there were a couple of minor
4	findings, but, by and large, OTIB-0054 held up
5	pretty well if that helps out any.
6	MEMBER MUNN: We had a rather
7	extensive review in procedures.
8	DR. MAURO: Yes.
9	CHAIRMAN GRIFFON: And this
LO	requires a comparison.
L1	DR. MAURO: It requires, but I'm
L2	just saying at least it
L3	CHAIRMAN GRIFFON: Right, right,
L4	right. Okay.
L5	DR. MAURO: Except that there is a
L6	lot of controversy right now.
L7	CHAIRMAN GRIFFON: Yes. All
L8	right. It looks like not much yellow here for
L9	a while. 135 is the next one I show, 135.1.
20	This is a remaining action item.
21	MR. SIEBERT: I think we have hit
22	the point where at the December meeting, we

hadn't gotten this far into getting back into
the seventh set.
CHAIRMAN GRIFFON: Right, right,
right. Yes. This is probably just a
refresher at this point to see what is out
there. 135.4, follow-up on potential tritium
exposures. All right.
Well, this one, 136.3, this says
NIOSH is following up on this and the case is
being reviewed under PER review. I mean, I'm
trying to think what we've done. If it's
being reviewed in PER review
MEMBER MUNN: That was a few
months ago, but it's still status? Is that
where it is still?
MR. HINNEFELD: Well, I don't
know. I'll have to go find out. Well, the
issue being reworked as
CHAIRMAN GRIFFON: Exactly, yes.
MR. HINNEFELD: So that may
prevent us from going further on this.
CHAIRMAN GRIFFON: That's what I

1 was wondering because most times in most of the resolution I have, if it's under PER 2 review, we kind of note it, but we don't go 3 4 any further with it, you know. And then we're 5 going to say eventually we may want to look back at some of those PER review cases, not 6 7 necessarily all of them but some of interest 8 or whatever. 9 MR. HINNEFELD: Right. 10 CHAIRMAN GRIFFON: Because when you rework, as we all remember it, when you 11 12 rework the case for PER review, you also often 13 rework many aspects of the case, right? 14 MR. HINNEFELD: Yes. 15 CHAIRMAN GRIFFON: So it would be 16 a whole different thing. So my question is, why is that phrased differently? It looks at 17 follow-up and PER review. Go ahead. 18 19 MR. SIEBERT: This is the issue of 20 Rocky Flats and what they sent us documentation on their X-rays. That is coming 21

22

back to me.

CHAIRMAN GRIFFON: Okay.

MR. SIEBERT: We've been dealing with this, that in a TBD, it had basically said the X-ray records may not be fully complete, which gives the indication that they may or may not be.

When we were getting records from the Rocky Flats document people, we were getting the paper medical records from them.

And when we were reviewing them, most of them looked pretty much like they would be complete.

In other words, you would see either annuals or you would see every couple of years. Nothing looked like there was something missing. There weren't big, bulky gaps in it.

So at that time, we were saying if it looked like it was complete, we would go with the record. We weren't sure we would go with annuals. They went back to the TBD saying that they may or may not be complete at

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that point.

We have looked into the situation a little further and looking at the actual films for some examples. And it looks like the film record may be more complete than the actual paper medical record that they were sending to us.

So we are presently working with the Rocky Flats folks as to how they're going to send us the X-ray information so that we know that we have all the information on the X-rays.

MR. HINNEFELD: Yes. They're going back. They've got the film. So they're going back to check the films.

DR. MAURO: Any reason why you didn't go to -- on so many occasions, I have seen you resort to OTIB-006. It's the one that's a generic approach for reconstructing exposures from medical X-rays, when you use look-up tables. We did a very detailed review of it and found very favorably.

Any reason why you don't go to that?

MR. SIEBERT: We won't go to OTIB006 if we have a TBD. TBD would trump OTIB006 because it's site-specific information,
which was fitting in this case because the TBD
did clearly say that they may or may not be
fully complete. This is pretty much how we
applied that information and then went back
and looked at films and realized that it may
not be consistent.

MR. HINNEFELD: And we did have a discussion when we found this when this issue came alive. We did have a discussion about, well, shall we just go with the default annual or should we go try and get the record from the film, the film record? We're not going to get the films, but there is going to be a record there, an actual film record.

And, for some reason, we decided to go get the films. And, to be honest with you, I don't remember why. We did talk about

1	that at the time. And someone made a fairly
2	compelling argument that we ought to try to
3	look at the film.
4	It may even have been as much as
5	some of the cases that there were more than
6	one a year or something. It may have been.
7	I don't know if that was it. I don't know if
8	that was it.
9	But, for some reason, you know
10	and I don't remember. Somebody made a
11	compelling argument we ought to go see what
12	those tell us. So that's what we are
13	pursuing.
14	So, I mean, with respect to that,
15	I mean, so other than the fact that it is in
16	PER, I mean, 136.3, at least for Rocky Flats
17	cases, you know, we kind of by pursuing the
18	more complete records feel like we have been
19	addressing 136.3.
20	Now, 136.4 poses an interesting
21	question.
22	CHAIRMAN GRIFFON: I guess that's

1	my question.
2	MR. HINNEFELD: This case is being
3	PER reviewed.
4	CHAIRMAN GRIFFON: Right.
5	MR. HINNEFELD: But the version we
6	have in front of us is not. And we still have
7	this inconsistency about which solubility
8	class is better.
9	CHAIRMAN GRIFFON: Right.
10	MR. HINNEFELD: And there is an
11	agreement to trade IMBA runs. So I would
12	suggest that we maybe go ahead and do that.
13	CHAIRMAN GRIFFON: Yes. I think
14	we
15	MR. FARVER: I did. I sent it to
16	you all
17	MR. HINNEFELD: And we probably
18	have not sent you all our
19	MR. FARVER: January 27th.
20	MR. SIEBERT: We actually have
21	runs. I see runs from August.
22	MR. HINNEFELD: Okay. So we will

1	get to you our runs. We have yours.
2	CHAIRMAN GRIFFON: Let me go back
3	to 136.3 just for a second. Are we closing
4	that out or can we close that out? You said
5	that you're following up to see if I mean,
6	the original finding is that the CATI was
7	inconsistent with the actual X-rays that you
8	the extra frequency that you had in
9	MR. HINNEFELD: Well, I guess if
10	you ask questions of CATI, it is going to be
11	consistent with the film record.
12	CHAIRMAN GRIFFON: Right, right.
13	MR. HINNEFELD: And so I don't
14	know what exactly CATI says. Maybe it says
15	annual X-rays or something. I guess my view
16	of when you ask somebody 20 years after the
17	fact "How often did you have X-rays?" they
18	will remember, "Well, we went every year and
19	had X-rays."
20	MR. FARVER: Well, it's not
21	consistent with the CATI or the TBD.
22	MR. HINNEFELD: Okay. And the

1	fact of that
2	MR. SIEBERT: And then that was
3	the reading of the TBD where you interpreted
4	it as saying it may be incomplete, so always
5	really should assume annual versus we were
6	reading it as it may be incomplete, so look at
7	the record and see if it appears like it would
8	be complete. That was the different way of
9	interpreting what was written in the TBD.
10	MR. FARVER: Correct.
11	CHAIRMAN GRIFFON: So I guess my
12	question is, do I leave this open until you go
13	back? You're going back to the site to ask
14	for these records, the things
15	MR. HINNEFELD: Yes, or wherever
16	they store the records there. This is
17	MR. FARVER: Because it says it is
18	not reliable to count the records. The
19	medical files do not always document each
20	X-ray taken.
21	MR. HINNEFELD: It said it right

in --

1	CHAIRMAN GRIFFON: Right, right.
2	MR. FARVER: Well, if you can't
3	rely on it, then I would guess you would
4	assume anyway.
5	MR. SIEBERT: Or go to the actual
6	films of what we're truly doing.
7	CHAIRMAN GRIFFON: Which is what
8	you are doing now. But that is like a
9	follow-up action, really.
10	MR. SIEBERT: Yes, right.
11	CHAIRMAN GRIFFON: So I don't want
12	to close it out until, you know I will
13	leave that as
14	MR. SIEBERT: What are you looking
15	for from us?
16	MR. HINNEFELD: You just want a
17	report while we have it?
18	CHAIRMAN GRIFFON: Yes, just a
19	report. Yes.
20	MR. SIEBERT: Which is what we are
21	intending to do.
22	CHAIRMAN GRIFFON: Yes. When you

1	went back and found the films, what did you
2	find out, too, compared to the original
3	assumptions? Yes.
4	MR. SIEBERT: I think I have that
5	information.
6	CHAIRMAN GRIFFON: Right.
7	MR. FARVER: I guess for future
8	cases, you would consider if there is
9	conflicting information in the CATI report for
10	Rocky Flats anyway. It should get kicked back
11	to go look for if it's POC or something
12	MR. HINNEFELD: We are getting all
13	of those things.
14	CHAIRMAN GRIFFON: You are? Okay.
15	MR. HINNEFELD: We are getting all
16	of them, I mean, claim, all the claim ones,
17	CHAIRMAN GRIFFON: Right.
18	MR. HINNEFELD: not all of them
19	but the claim ones.
20	CHAIRMAN GRIFFON: Okay. Now, the
21	other two I agree with you, Stu, that we
22	should leave them all. But even though it's

a PER review, we should look at the sheer IMBA runs on this. That's 136.4 and .5.

Anything else on that?

DR. MAURO: Well, I will just ask a question. I haven't seen this kind of attention before to the film. It sounds like a case difference may make a difference. In other words, for you folks to be putting this much attention --

MR. SIEBERT: Now, I don't believe this makes any difference whatsoever, but since the TBD was written the way it was and the way we interpreted it, we wanted to basically go back and figure out, Okay. What is really the right interpretation of reading it? So we went back and actually requested the films. That's why we went into that depth.

MR. HINNEFELD: Yes. The first thing we actually did was we went and looked at like nine and just said, "Okay. Here are nine claims. Pull these out, these nine,"

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1	claiming that the actual film record be done
2	compared to the medical record we got. I
3	don't think any of them
4	CHAIRMAN GRIFFON: Right.
5	MR. HINNEFELD: I don't know if
6	any of them
7	MR. SIEBERT: And it was
8	inconsistencies between both sides.
9	MR. HINNEFELD: And so based on
10	that, we said
11	CHAIRMAN GRIFFON: You had better
12	just get them off.
13	MR. HINNEFELD: Yes.
14	CHAIRMAN GRIFFON: Okay.
15	MR. FARVER: Just a little bit of
16	discussion on 136.5. This is where I believe
17	the employee mentions that there were fires in
18	one of the buildings in the CATI report. He
19	worked in the building that caught fire, 444.
20	Okay.
21	And when you look at the DR report
22	that talks about the CATI information, main

1	fires at Rocky Flats occurred before the
2	employee's employment. However, it will
3	account for any small fires that may be
4	involved in the assumption of insoluble
5	material was assumed.
6	That refers to plutonium. The
7	building 444 is a beryllium/uranium building.
8	So this goes back to support the type S
9	uranium.
10	MR. SIEBERT: Right. And I think
11	that there were two issues. Initially in the
12	dose reconstruction report, we referred to the
13	work in 776, the plutonium areas, versus 404
14	or 444, which we agree we should have written
15	the 444 for the uranium. But this is the same
16	thing as the previous one in that
17	MR. FARVER: Sure.
18	MR. SIEBERT: I believe the
19	Type S was not claimant-favorable, a more
20	soluble form based on latency of we need to
21	trade the

MR. FARVER: Can relate to each

1	other, yes.
2	MR. SIEBERT: In IMBA.
3	CHAIRMAN GRIFFON: Okay. I am on
4	down to 137.4. I don't really see a clear
5	action there as I wrote it. Which site is
6	this on?
7	MR. FARVER: This is Paducah.
8	CHAIRMAN GRIFFON: Paducah, yes.
9	So I guess part of it is OTIB 17, but part of
LO	it is the case-specific question of
L1	contamination at the location or radionuclide,
L2	I guess.
L3	MR. FARVER: According to their
L4	TBD for Paducah, it states "Some skin
L5	contamination events involving tech-99 could
L6	have occurred without being detected at the
L7	time.
L8	"In some cases, therefore, it
L9	could be appropriate to consider an additional
20	skin dose component for a reported shallow
7 1	dose of a worker who could have had direct

contact with Tc-99. In the absence specific

1	data, the dose reconstructor must make
2	assumptions about the number of times per year
3	on the effect of the skin region that could
4	have been contaminated and the extent of each
5	contamination."
6	And basically what we point out is
7	the buildings that he worked in. There was
8	Tc-99. There was thorium. And he had the
9	potential for low energy beta radiation. So
10	we feel that he should have considered a
11	shallow skin dose growth.
12	DR. MAURO: And it appears that
13	NIOSH agreed with that.
14	CHAIRMAN GRIFFON: Yes, the bottom
15	of your response. It should have been
16	included.
17	MR. HINNEFELD: That's interesting
18	because I don't know that I much agree with
19	that. Here is the situation. Here is what
20	concerns me about that. You are suggesting
21	assigning a skin dose component for a

contamination event that we have no evidence

at all.

CHAIRMAN GRIFFON: Right. But I am wondering how you are going to do that.

MR. HINNEFELD: Okay. I am really at a loss for how to do that because if you are going to assume a contamination event, why not assume several? Why not assume whatever level you want for as long as you want every day until you wash it off or you didn't take a bath until you just compensated? I mean, I don't know if you've ever got -- but for a lot of cases you could.

so my concern is a practical matter here. If you have no evidence of it, how in the world do you deal with it? Because you essentially are speculating its existence. And once you have done that, you could have a reasonable amount that you put on there for the entire work period.

MR. FARVER: But I believe it was monitored internally for tech-99.

MR. HINNEFELD: Well, I mean, you

1	will run into a situation everywhere.
2	MR. FARVER: Oh, I understand
3	that. So how many
4	MR. HINNEFELD: It's not only a
5	tech-99 issue. I mean, this will go any place
6	that has unconfined
7	MR. FARVER: I mean, I see the
8	problem from an implementation point of view.
9	I also see it from looking at, well, yes, it
10	could have.
11	MR. HINNEFELD: Correct.
12	MR. FARVER: And the way the
13	documentation is currently written, it says it
14	could be appropriate to consider a skin dose
15	component.
16	MR. HINNEFELD: I just don't know
17	a way to do it.
18	DR. MAURO: We run into this time
19	and again. At the Nevada test site, this
20	issue came up. And the discussion goes there
21	are certain sites where the potential for skin
22	contamination, it's clear that it exists.

This might be one of those sites.

Then under those circumstances, I know we talked. All right. So let's say we have a circumstance. And now a person goes into a controlled access area. He's suited up.

In some cases, he's suited up to the point where he's completely covered. And so, therefore, the potential for him to have experienced a direct deposition skin contamination is extremely small.

And that was one of the answers given for Nevada test site, that there was access to controls. The person was totally covered. But there are also circumstances where that is not the case, where there is evidence that the person was not fully covered. He could have gotten some contamination on the face, skin, hand area, uncovered areas. And there was a very real potential for that kind of contamination.

That was, by the way, one of the

concerns with OTIB 17. All right? Because you remember everything that you do in OTIB 17 is based on the non-penetrating exposure as read out on the film badge as if any kind of non-penetrating exposure was at a distance, no consideration given to those unusual circumstances.

Now, one of the arguments given is that, notwithstanding even if he was uncovered, he goes through an access and egress control point, where we scan. And if there is any contamination, it would be picked up and washed off.

And I think we left it as I think unresolved, namely is that good enough.

MR. HINNEFELD: Well, if we want to pursue this, I'm just going to suggest this has to go on the over-arching issues because this is an issue that will -- I worked at Fernald in the 1980s. I hear exactly what you are talking about. And so I know exactly what you are talking about.

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1 There was a period at Fernald when there were no contamination monitors. 2 you went home, you were required to shower 3 4 before you went home. 5 But there were no contamination monitors. You don't know if he first got in 6 7 the shower contaminated. You don't know if he got out clean. 8 So I understand exactly the point. 9 10 CHAIRMAN GRIFFON: Yes. MR. HINNEFELD: I am just trying 11 to say that sitting here today, I don't even 12 13 know what I would do about that. 14 MR. FARVER: You know, I am 15 looking back further here at the job 16 description, what the employee did. There's a groundskeeper for a certain time. 17 And then 18 he was mechanical maintenance. So he did some 19 mowing in the cylinder yards, also sandblasting cylinders, wetting down roofs or 20 buildings and grinding them up and putting new 21

roofs on buildings. So maybe you can narrow

1	it down to a time period.
2	MR. HINNEFELD: But even then, I
3	mean, you can. You might be able to bound the
4	case. I just think it's universal.
5	MR. FARVER: Oh, it is. It's
6	definitely universal.
7	DR. MAURO: Absolutely.
8	MR. HINNEFELD: Maybe the program
9	needs to come to grips with dealing with that
10	because, by the way, the roofs at Fernald were
11	not good either. It was just a tar roof, but
12	apparently it attracted further contamination.
13	MR. FARVER: Go out and weld cells
14	about once a week in various process buildings
15	on the cell floor.
16	CHAIRMAN GRIFFON: And the other
17	thing, different from John's example, I think,
18	is that in Paducah, we know that they weren't
19	always all covered, you know? I mean
20	MR. HINNEFELD: Or at Fernald,
21	right.
22	CHAIRMAN GRIFFON: Or at Fernald.

1	MR. HINNEFELD: The experience my
2	career has
3	CHAIRMAN GRIFFON: Yes.
4	MR. HINNEFELD: I understand
5	exactly what you are talking about.
6	CHAIRMAN GRIFFON: How to quantify
7	it is the problem. Yes, yes. I listed it as
8	a NIOSH needs to consider this as an
9	over-arching issue.
LO	MEMBER MUNN: I am continually
L1	making assumptions that each and every
L2	individual who is in the area of specific
L3	radionuclides, like tech, when they are badged
L4	and you have material from which to work in
L5	making a plausible scientific assessment of
L6	what their exposure was, it's foolish to make
L7	the assumption that every individual had every
L8	type of exposure that would be possible. How
L9	would you come to the conclusion that that was
20	a legitimate thing to do?
21	MR. HINNEFELD: Well, by putting

it as an over-arching issues, I will let Dr.

1	Neton worry about that.
2	CHAIRMAN GRIFFON: No. I don't
3	think anybody disagrees with that one. I
4	mean, it's just how these determine for, you
5	know, there has got to be some sort of
6	MEMBER MUNN: Well, there needs to
7	be some evidence.
8	CHAIRMAN GRIFFON: I think there
9	was some evidence.
10	MR. FARVER: If you go back to
11	where what the job functions were, you know,
12	cutting and welding on a process floor might
13	be a good indicator. Mowing probably isn't.
14	CHAIRMAN GRIFFON: Yes.
15	MR. HINNEFELD: Interesting
16	debate. It will be an interesting debate.
17	MR. FARVER: Yes.
18	CHAIRMAN GRIFFON: I am not sure
19	there is much to debate about. I am not sure
20	there is much to debate about, but it will be
21	an interesting discussion.
22	MEMBER MUNN: So where are you

1	with respect to this finding? What do we do
2	about that?
3	CHAIRMAN GRIFFON: Well, I put it
4	on NIOSH will consider this as an over-arching
5	issue, white paper idea, I guess, you know,
6	white paper concept. I am not sure how it
7	affects this individual finding for this case.
8	I mean, that's
9	DR. MAURO: He is a skin cancer
10	case?
11	MR. FARVER: Yes.
12	MR. HINNEFELD: It has to be.
13	Otherwise it wouldn't be here.
14	CHAIRMAN GRIFFON: Yes. Otherwise
15	it's not even a concern. Yes.
16	DR. MAURO: And we are talking
17	about uranium?
18	MR. HINNEFELD: It's Paducah. So
19	it will be some potential for
20	CHAIRMAN GRIFFON: Yes, uranium,
21	thorium.
22	MR. HINNEFELD: But they have tech

1	there as well.
2	CHAIRMAN GRIFFON: Right.
3	MR. HINNEFELD: Paducah is
4	probably locked in with Fernald.
5	DR. MAURO: You have a particle of
6	any say you've got a cancer of the neck.
7	CHAIRMAN GRIFFON: Right.
8	DR. MAURO: You could say, "Okay.
9	We know the"
LO	MR. HINNEFELD: What kind of
L1	particle?
L2	DR. MAURO: What's that?
L3	MR. HINNEFELD: What kind of
L4	particle would get cleaned off?
L5	DR. MAURO: I don't know, but
L6	MR. HINNEFELD: It would happen
L7	again and again.
L8	CHAIRMAN GRIFFON: Yes, I know.
L9	DR. MAURO: If it was me, what
20	would I do if it was me? I said, "Wait a
21	minute. Wait a minute." I would say, "Let me
22	make an assumption that some particle is

1	sitting on my neck for eight hours before I
2	took a shower. And I will run the skin."
3	What is that, VARSKIN? Run over
4	there, and I will see what the dose was for
5	that little spot. That's what I would do if
6	it was me. I would want to know.
7	MR. HINNEFELD: Call Jim.
8	CHAIRMAN GRIFFON: Maybe as a
9	starting "What if?" Yes. Okay. 137.6, then,
10	is the next one. And I have "NIOSH to follow
11	up on this case." This is a solubility
12	assumption.
13	And that holds for the next two
14	also, NIOSH to follow up on .7 and .8 as well.
15	So it's fission products and then the CATI
16	incidents reported question.
17	MR. HINNEFELD: This is a Paducah
18	case. Is that right?
19	CHAIRMAN GRIFFON: Yes, yes.
20	MR. HINNEFELD: I think, well, we
21	will get you more on it. I think they used
22	the Y-12 mobile counter at Paducah, right?

# CHAIRMAN GRIFFON: Yes.

MR. HINNEFELD: It just spit out radionuclides. You know, since it spit out Cesium-137, that didn't mean they were looking for Cesium-137. So any kind of a fission product contribution from Paducah would be from recycled uranium content. So it ought to be addressed to that.

I don't think you would want to interpret a printout from the mobile counter as including things like Cesium-137. There may have been some other stuff on it, too, as meaning that there were indications that really needed to be monitored for it. I think the intake would have to be based on the recycled uranium conclusions.

CHAIRMAN GRIFFON: I mean, I think you're right. I mean, that sounds logical, but you want to check.

MR. HINNEFELD: Yes. I can go chase this down some more.

MR. FARVER: Yes. I mean,

1	basically we are just saying you didn't
2	consider fission products. We're not really
3	saying it's from whole body count. We're
4	saying we have in vivo and in vitro.
5	CHAIRMAN GRIFFON: Yes.
6	MR. FARVER: Cover both.
7	MR. HINNEFELD: It's a really bad
8	day when they have some fission in Paducah.
9	It's a really bad day.
10	CHAIRMAN GRIFFON: Right. All
11	right. So I propose that we stop here. I
12	thought I was going to get through the whole
13	matrix. We almost made it, but it's a good
14	time to break for lunch.
15	We're at a new case here, 138.
16	Why don't we pick it up and give ourselves and
17	hour for lunch and reconvene at 1:00 o'clock
18	our time, Wanda? Is that all right?
19	MEMBER MUNN: That will be fine.
20	All right. With many mea culpas, I have to
21	tell you that I appear to have done something
22	really bad to my data files when I shut down

1	yesterday after our teleconference yesterday.
2	And I am not sure I am going to be
3	able to retrieve my Board files. They seem to
4	be pretty well trashed or hidden somewhere
5	that I can't get to them.
6	So the material that we are going
7	to cover this evening, this afternoon, when
8	John joins us is probably not going to be
9	easily retrievable for me either. If someone
10	has that easily available that could
11	CHAIRMAN GRIFFON: We'll get that
12	case report sent to you.
13	MEMBER MUNN: I really appreciate
14	that.
15	CHAIRMAN GRIFFON: Do you need the
16	eighth set of cases, too?
17	MEMBER MUNN: Apparently I do.
18	CHAIRMAN GRIFFON: All right.
19	MEMBER MUNN: I am unable to
20	resurrect any of the Board files.
21	CHAIRMAN GRIFFON: We will get
22	those e-mailed to you.

1	MEMBER MUNN: I have no idea where
2	my Board files are.
3	CHAIRMAN GRIFFON: Okay. It's
4	going to be two files. We'll send them to you
5	from one of us. I'm not sure.
6	MEMBER MUNN: I very much
7	appreciate it.
8	CHAIRMAN GRIFFON: Okay, Wanda.
9	MEMBER MUNN: Thank you.
10	CHAIRMAN GRIFFON: All right. Bye
11	bye.
12	MR. KATZ: Okay. I am
13	disconnecting the phone.
14	(Whereupon, the above-entitled
15	matter went off the record at 12:04 p.m. and
16	resumed at 1:03 p.m.)
17	
18	
19	
20	
21	

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_	A-F-T-E-R-N-O-O-N S-E-S-S-T-O-N
2	(1:03 p.m.)
3	MR. KATZ: Hello. This is Ted
4	Katz with the Advisory Board of Radiation
5	Worker Health. And this is the Subcommittee
6	on Dose Reconstruction Review. We are about
7	to get started again, having broken for lunch.
8	I just want to check first for
9	Board members on the phone. Wanda, have you
LO	rejoined us?
L1	MEMBER MUNN: I have. Thank you
L2	for sending me the necessary files.
L3	MR. KATZ: You're welcome. And,
L4	Dr. Poston, are you with us, too? John?
L5	CHAIRMAN GRIFFON: Not yet. Well,
L6	maybe he will be by the time we get to
L7	MR. KATZ: Not yet. Right. Do we
L8	need to check on anyone else? Do you need to
L9	know from SC&A?
20	DR. MAURO: No. We are fine.
21	CHAIRMAN GRIFFON: Okay. I would
22	like to wrap up the seventh set. We are

1	almost to the end of the seventh set of cases.
2	So I figure we will wrap that up. And then we
3	will go into the other piece, the first
4	100-day report.
5	We left off on case number 138.
6	Actually, I see nothing on that one. This can
7	be quick.
8	Okay. One forty-three is actually
9	the next place I have where I see NIOSH to
10	follow up on this case, whether or not we
11	received all available dosimetry data. That
12	was sort of the finding. I guess if I don't
13	hear anything else, I will assume that is
14	MR. HINNEFELD: Yes. We can give
15	it a try. I mean, generally when we go back
16	to DOE about things like this, we send you
17	what we've got.
18	CHAIRMAN GRIFFON: Send me what
19	you have, yes.
20	MR. HINNEFELD: I mean, we can
21	ask.
22	CHAIRMAN GRIFFON: Right. Why

1	does it come up in this particular case to
2	remind us? Doug, I know we have been through
3	this before, but
4	MR. FARVER: I'll find it real
5	quick.
6	CHAIRMAN GRIFFON: There must be
7	something that
8	MR. FARVER: Yes, because it was
9	something in the CATI report.
10	CHAIRMAN GRIFFON: Yes.
11	MR. FARVER: Now, is the correct
12	finding 143.1?
13	CHAIRMAN GRIFFON: Yes.
14	MR. FARVER: 143.1. Okay. It has
15	to do with the CATI report. We're in the EE
16	routine radiation, dosimeter badges. And the
17	claimant has copies of the employee's
18	dosimetry records.
19	The DR report doesn't mention
20	anything about this. So SC&A is questioning
21	whether the dosimetry records were requested
22	from the claimant and any additional ones from

1	DOE.
2	So part of this is whether the
3	check box in the CATI report when the claimant
4	says, "Yes, we have additional records." Do
5	those records get requested? And the other
6	concern
7	CHAIRMAN GRIFFON: Do you mean the
8	individual said they had additional records?
9	MR. FARVER: Correct. Well,
10	that's one part of it.
11	MR. HINNEFELD: Just so
12	everybody's expectation is the same here, I
13	mean, this is a claim that was adjudicated a
14	long time ago. So this claimant would not
15	have been unless there were cases we opened
16	for some reason, it would not have been a
17	communication with the government about this
18	claim for a long time.
19	MR. SIEBERT: Pulled.
20	MR. HINNEFELD: Pulled?
21	MEMBER MUNN: Stu, I can hardly

hear you again.

1	MR. HINNEFELD: Okay. Well, Scott
2	advises me that this case has been pulled for
3	SEC. Apparently this person's employment is
4	in the Los Alamos. It's a LANL case. It was
5	in the LANL SEC period. And so it looks to us
6	as if it's going to be concentrated in that.
7	Just in the instance of this, we
8	don't make it a practice to go back to
9	claimants on these cases that the Board is
10	reviewing that have been adjudicated long ago,
11	for instance, in this case where they said
12	they had more records. We just feel like they
13	ought not to reopen the
14	CHAIRMAN GRIFFON: You want to
15	make new communications with them and get any
16	
17	MR. HINNEFELD: Yes. Why reopen
18	the
19	CHAIRMAN GRIFFON: Right, right.
20	MR. HINNEFELD: closing since
21	they got their adjudication answer. And so we
22	wouldn't go back. Now, we could do additional

1	searching, you know.
2	MR. FARVER: No. But, I mean,
3	when someone marks that in their CATI
4	interview
5	MR. HINNEFELD: In our response,
6	we did say, "Well, there are a lot of medical
7	records in the DOL file." And so it could be
8	that she has boxes of medical records but
9	nothing additional on the dosimetry.
10	CHAIRMAN GRIFFON: But I think in
11	this case you didn't go back to the individual
12	probably. That's
13	MR. HINNEFELD: Really, by the
14	time the Board reviews it, unless this case is
15	back and active again, I don't think we
16	CHAIRMAN GRIFFON: No, no, no.
17	MR. HINNEFELD: Oh, you mean at
18	the time we would do it?
19	CHAIRMAN GRIFFON: At the time you
20	did it.
21	MR. HINNEFELD: No. I'll bet we
22	probably do not. I'll bet we probably do not.

1	CHAIRMAN GRIFFON: I guess that
2	would be more
3	MR. HINNEFELD: We concluded that
4	she was referring to the medical records and
5	review at the time we did the dose. That was
6	probably our conclusion at the time.
7	CHAIRMAN GRIFFON: That is kind of
8	an assumption.
9	MR. SIEBERT: But you would have
10	had the opportunity during the close of that
11	interview to say that that was unacceptable to
12	her and said she had more records
13	MR. HINNEFELD: Yes.
14	MR. SIEBERT: and could have
15	sent them in, too.
16	MR. HINNEFELD: So, I mean, we can
17	go back to LANL, you know. LANL has been a
18	bit of a problem child sometimes with records.
19	And so, you know, we can see if there is
20	anything else there. We can check back with
21	our own research. Maybe we have discovered
22	that things really weren't that good back in

1	those days or we don't have any
2	CHAIRMAN GRIFFON: its being
3	pulled for SEC anyway.
4	MR. HINNEFELD: Yes. I mean, it
5	is not a bad claim. I just think it is just
6	for general reference.
7	MR. FARVER: That was part of it.
8	The claimant said there were additional
9	records. In this case, the employee worked
10	there from '46 through '90 or '91. It's a
11	long time period. And there are only three
12	years of exposure data: '56, '57, and '64.
13	That is probably what keyed it up
14	to us there so that there might be additional
15	records, if you worked there that long and you
16	just have three years of monitoring data.
17	CHAIRMAN GRIFFON: Yes, right.
18	Yes.
19	MEMBER MUNN: So the real bottom
20	line here is did we have adequate records to
21	do the job that was necessary to be done? And

that is to say, does what we have constitute

1	adequate information?
2	This is not additional needed
3	information or was it not? That is the
4	question that seems
5	MR. FARVER: Well, I can't tell
6	you it was adequate because you only have
7	three years of monitoring data. And then they
8	only assign three years of missed dose data
9	based on those three years of monitoring data.
10	So I am not sure that is adequate.
11	CHAIRMAN GRIFFON: I think the
12	real bottom line is it's likely to be in the
13	SEC, right?
14	MR. HINNEFELD: Yes. I mean, that
15	may be, you know, the reason for it. But yes,
16	this case is in the SEC. I think that, Wanda,
17	to answer your question, did we have adequate
18	records, it depends on we should have had more
19	or not.
20	If the person was only monitored
21	for three years, then we had all of the
22	records. If the person was in a fairly

1 unexposed job or pretty much unexposed job for their careers, then we had adequate records. 2 But if this person was for a while 3 4 in jobs where they had a relatively high 5 exposure, especially for long years, I mean, they worked there a long time and those 6 7 records weren't made available to us, well, then, arguably, we didn't have adequate 8 records. 9 10 So, you know, you can't really answer the question were these records 11 12 adequate without knowing if there is still in 13 them. 14 MR. FARVER: Correct. And if you 15 go back even to the job descriptions, well, 16 janitor, lab associate, technician, prototype machinist, casting machinist, so yes or no. 17 18 MR. HINNEFELD: Yes. 19 CHAIRMAN GRIFFON: Yes. 20 MEMBER MUNN: I'm thinking in terms of the closure of the file itself when 21 I really should see if we have adequate 22

1 records to complete what needed to be done. MR. HINNEFELD: Well, in this case 2 3 the judgment was made that the Los Alamos 4 records are of sufficient quality that had he 5 been monitored, we would have had more records. 6 7 MEMBER MUNN: Right. MR. HINNEFELD: That was the tacit 8 9 assumption that was dose reconstruction 10 because when a person didn't have a monitoring record, they were assigned the ambient dose, 11 12 which means that they were essentially a 13 non-exposed person. They just worked on the site. 14 15 Right. MEMBER MUNN: 16 MR. HINNEFELD: So that was the 17 assumption in this. And whether or not that was a good assumption or not would depend on 18 19 whether our understanding of the Los Alamos 20 record system is correct or the one we had at that time. 21

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I can check to see if it has

1	changed. I mean, we could go back to Los
2	Alamos and with the general question about,
3	are we sure, are you sure we are getting all
4	of these exposure records. But in terms of a
5	follow-up, I don't know if there is going to
6	be anything terribly satisfying. We normally
7	go back to a DOE site.
8	MEMBER MUNN: But in any case, did
9	I hear correctly that this now falls into an
10	SEC?
11	MR. HINNEFELD: Yes, that is the
12	case.
13	CHAIRMAN GRIFFON: Does it fall
14	into or it's being assessed to determine?
15	MR. HINNEFELD: It is our judgment
16	that it will. It is on that list because they
17	have employment in the covered period and they
18	have what appears to us to be SEC cancer.
19	MEMBER MUNN: I see.
20	MR. HINNEFELD: So that's why they
21	end up that full category. That's what puts
22	them in that.

1	CHAIRMAN GRIFFON: Okay.
2	MR. HINNEFELD: So, now, on that
3	one, I said we would see what we can find out
4	if there is a way to find out any more. That
5	is actually several of the 143 findings fall
6	in that category, right?
7	CHAIRMAN GRIFFON: Yes, but I was
8	just going to say, if I can use that last bit
9	you just said, I don't feel that there is any
10	further action on this case.
11	MR. HINNEFELD: That is even
12	better.
13	CHAIRMAN GRIFFON: I mean, we will
14	just say that it's no further action in this
15	case since it appears I want to know how to
16	phrase this to fall under the SEC class.
17	MR. HINNEFELD: Yes, yes.
18	CHAIRMAN GRIFFON: I haven't
19	looked at the other couple of findings, but it
20	may be that that applies as well, you know.
21	We're talking about 143.5 and .6.

One is related to receiving all

1	the velocity of the other. I think the same
2	thing would be applicable here, right?
3	MR. FARVER: Yes.
4	CHAIRMAN GRIFFON: And the other
5	one is really the CATI. Yes. So I think it
6	still applies, right?
7	MR. FARVER: Yes.
8	CHAIRMAN GRIFFON: So we'll close.
9	I think we'll close this case out because it
LO	falls under the SEC.
L1	MEMBER MUNN: Some of the closures
L2	of some of the earlier items on that
L3	particular case were closed, saying that that
L4	badging policy is to be reviewed in site
L5	profile review, another one of those things
L6	where the action goes somewhere else.
L7	MR. KATZ: Wanda, it's hard to
L8	hear you. Maybe you could pick up the
_9	MEMBER MUNN: Maybe I am just
20	speaking too softly because
21	MR. KATZ: Oh, maybe.
22	MEMBER MUNN: I do have my

1	handset in my hand.
2	CHAIRMAN GRIFFON: That's better.
3	MEMBER MUNN: I was raising a
4	question with respect to the badging policy to
5	be reviewed in the site profile review
6	CHAIRMAN GRIFFON: Yes.
7	MEMBER MUNN: for item 2 and
8	item 3 of that particular case and was
9	commenting that this is another one of those
10	things where the action goes somewhere else
11	and it's not clear how that particular item in
12	this matrix gets its final stamp of closed.
13	CHAIRMAN GRIFFON: Well, for this
14	case, since it's an SEC, the case would be
15	closed anyway. But I understand what you're
16	saying in general you refer to a site profile
17	review.
18	MEMBER MUNN: Yes. It's not
19	necessarily this case but
20	CHAIRMAN GRIFFON: Usually it
21	stays open, yes.
22	MEMBER MUNN: overall have we

1	finally wrestled that to the ground how we are
2	going to "write closed" in the final column?
3	CHAIRMAN GRIFFON: I don't think
4	we have any further than the procedures
5	workgroup has. I mean, I think it's the same
6	scenario that we the procedures
7	subcommittee will have the same kind of thing.
8	I mean, we just have to be able to
9	track all of these matrices
10	MEMBER MUNN: Yes. Well, it
11	CHAIRMAN GRIFFON: across our
12	Board work, you know? Yes.
13	MEMBER MUNN: Yes.
14	CHAIRMAN GRIFFON: So this is
15	getting referred to the LANL site profile
16	review, which I guess I am involved with. And
17	we just have to make sure it doesn't get lost.
18	Yes, I know what you are saying.
19	MEMBER MUNN: Yes.
20	CHAIRMAN GRIFFON: Yes. We are
21	going to do that in the data. John just
22	talked to me before the meeting started this

1	morning that I have to get in touch with Kathy
2	and probably Doug and work a little more.
3	They have a beta version of a database similar
4	to the procedures subcommittee database. And
5	I think they have even uploaded most of the
6	past data on that.
7	DR. MAURO: We've been working on
8	it.
9	CHAIRMAN GRIFFON: Yes. So, you
10	know, we are probably ready to that will
11	help us in tracking these kinds of and
12	being able to query and see what is hanging
13	out there and what has been transferred where
14	
15	MEMBER MUNN: Good.
16	CHAIRMAN GRIFFON: and so
17	forth. So yes, yes. So will use matrices in
18	the meetings and the database for tracking .
19	Anyway, we'll talk more about that.
20	MEMBER MUNN: That's good.
21	CHAIRMAN GRIFFON: Yes.
22	DR. MAURO: Is Kathy Behling on

the line?

MS. BEHLING: Yes, I am on the line.

DR. MAURO: Kathy, as a little update, how do things stand with Don Loomis loading the data into the database? Are we making some progress there?

MS. BEHLING: We've made a lot of progress. And I had hoped to get the database into Mark's hands before this meeting, but when I looked, in fact, Don has loaded the first five sets onto the database. I'm still reviewing some of that.

The one thing that has been added to this database that is not included in the procedures database is some statistics tabs.

And that hopefully is going to help the Board with their selection process. They will be able to go to that tab and see just what facilities we have already picked cases from and what types of cancer and so on and so forth as you looked at now.

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1	We are still working on the
2	facility portion of that statistics tab. And
3	that is really the last thing that needs to be
4	done before I turn it over to Mark and he can
5	look over it and see what he thinks about it.
6	Hopefully by the next meeting we
7	can be up and running with that.
8	MEMBER MUNN: That will be really
9	helpful, Kathy.
10	MS. BEHLING: Okay.
11	CHAIRMAN GRIFFON: All right. So,
12	then, 143.5 and .6 are a similar outcome as
13	143.1. So I am moving on to 144.1. I have
14	asked SC&A to review the case.
15	MR. FARVER: I've reviewed it, and
16	their response is correct. In other words, we
17	actually agree.
18	CHAIRMAN GRIFFON: Right.
19	MEMBER MUNN: That's wonderful.
20	MR. FARVER: Mark that down.
21	CHAIRMAN GRIFFON: It's good to
22	close out some. Can you tell us a little bit

1	about the why?
2	MR. FARVER: It has to do with the
3	calculation of shallow dose for let's see.
4	MR. SIEBERT: For missed dose.
5	MR. FARVER: Missed dose?
6	MR. SIEBERT: Yes. It's all
7	missed dose
8	MR. FARVER: Missed dose.
9	MR. SIEBERT: assigned as
10	photon. And there was no electron, but that's
11	because it was all missed dose related to 17
12	that way.
13	MR. FARVER: Yes. It has to do
14	with counting the zeroes. And if it's a zero
15	shallow and a zero deep, you do one thing.
16	And it's the different combination of the
17	zeros and the positives. And it's all spelled
18	out in OTIB 17 pretty well.
19	MEMBER MUNN: So SC&A accepts
20	NIOSH's explanation? Case closed.
21	MR. FARVER: Case closed.
22	CHAIRMAN GRIFFON: Okay. 144.2.

1	NIOSH has an action here on these.
2	MR. HINNEFELD: I've got nothing
3	new to provide today.
4	CHAIRMAN GRIFFON: Okay.
5	MR. HINNEFELD: I'll see if I
6	can't get some of this stuff before next
7	meeting. We're meeting again next month,
8	right?
9	CHAIRMAN GRIFFON: Yes.
10	MR. HINNEFELD: I'll see if I
11	can't get some of this stuff.
12	CHAIRMAN GRIFFON: It will be good
13	to close the sixth and the seventh if we can.
14	MR. HINNEFELD: Yes. We will try
15	to focus on those.
16	CHAIRMAN GRIFFON: We are pretty
17	close, I think.
18	MR. FARVER: Yes. That one
19	concerns, really, the ambient intakes for dose
20	rates and which table you chose, I believe.
21	MR. HINNEFELD: Yes. That sounds
22	right.

1	MR. FARVER: I'm not going through
2	the
3	MR. HINNEFELD: There's one where
4	there's like a max table and
5	MR. SIEBERT: There is a max
6	column. And yes, there's the different TAs.
7	And there's a max column, yes. There's
8	MR. HINNEFELD: For certain years,
9	the max is smaller than one or two of the TAs.
10	MR. SIEBERT: Than one of the TAs,
11	yes.
12	MR. FARVER: There are different
13	tables with different columns. And it's hard
14	to tell which table was used.
15	CHAIRMAN GRIFFON: Okay. And
16	that's the end of this seventh matrix. I'm
17	just cleaning up a few things before I save
18	and close it.
19	MEMBER MUNN: So there's no change
20	on that on 144.2?
21	CHAIRMAN GRIFFON: No. That's a
22	remaining action for NIOSH.

1	MEMBER MUNN: Okay.
2	CHAIRMAN GRIFFON: Okay. The next
3	topic on the agenda is a discussion of this
4	first 100-day or first 100 cases. First
5	100 days. I'm thinking of Obama.
6	MR. KATZ: Obama.
7	(Laughter.)
8	CHAIRMAN GRIFFON: He's got to
9	give a harder report pretty soon.
10	First 100 cases report. I was
11	looking back at some of my notes. And I'm
12	sure Wanda and others have ideas on this, but
13	one thing I saw, I think Paul was saying some
14	things about just that we should have
15	something in this report of the value or
16	implications of the work, of the first 100
17	cases that we reviewed. And that didn't come
18	out in the front end of the report.
19	You know, I think part of the
20	reason well, I think in order to get
21	consensus I was maybe staying away from some

of those discussions, but I think here we are.

1	So it's been turned back to our subcommittee
2	to consider this.
3	I guess I would pretty much open
4	it up to the floor. What I can do is maybe
5	take better notes at this meeting and figure
6	out. I don't think we have to have the exact
7	sentences, but if I can get some ideas on what
8	people think should be in this, I can rework
9	a draft and circulate it.
10	And for our consideration at our
11	next meeting, which is also before the next
12	full Board meeting, we've got another one of
13	these Subcommittee meetings coming up in
14	April. Is that right?
15	MR. KATZ: Yes.
16	CHAIRMAN GRIFFON: So I guess that
17	
18	MEMBER MUNN: Just as a sidelight,
19	that is the only one that I had on my
20	calendar, by the way.
21	CHAIRMAN GRIFFON: You missed this
22	little one?

1	MEMBER MUNN: I have no idea why
2	it isn't on my calendar, but it isn't.
3	MR. KATZ: Can I check? John
4	Poston, are you with us now? Dr. Poston?
5	CHAIRMAN GRIFFON: No.
6	MR. KATZ: Okay. He's still
7	there.
8	CHAIRMAN GRIFFON: Well, he'll
9	still have an opportunity. What I will do is
10	circulate this. And when it's in written
11	form, then you can really tear it apart. I
12	guess I will just open it up to ideas here.
13	And then I will try to redraft something and
14	circulate it.
15	MEMBER MUNN: I guess the real
16	question for me is, have you attempted to
17	address that issue of the value, what it was
18	doing?
19	CHAIRMAN GRIFFON: No. And right
20	now would be an opportunity to do so. I mean,
21	I apologize, Wanda. I haven't wrestled with

this much myself since the last meeting.

1	MEMBER MUNN: Well, and neither
2	have I. I looked at it very thoroughly at one
3	juncture, but I actually, to be truthful, have
4	slept too many times since then.
5	CHAIRMAN GRIFFON: I mean, I have
6	some notes here, you know, value. You know,
7	some things that come to mind for me are that
8	I need specifics on this, I think.
9	Some things that come to mind to
10	me are that, going through these first on your
11	cases, some of our work in this audit affected
12	NIOSH changing their DR report or at least
13	partially I don't know the exact words. I
14	don't want to say that we were the only ones
15	that you know, because of us they modified
16	the whole DR report. They might have had some
17	of that ongoing already.
18	MEMBER MUNN: But it was an
19	influence.
20	CHAIRMAN GRIFFON: Yes. At least
21	they influenced that is probably a better

word -- influenced the redrafting and

reshaping of some of the DR reports that communicates to the claimants. I think that was a positive output of value to this first early work of the audit.

That's one thing that struck me a lot. The other thing I think was that some of this work has affected sort of the structuring of the case files themselves by NIOSH to make them more -- you know, this whole concept of showing their work.

I guess then on the other things that have come up out of this -- and I don't know if these are necessarily, you know, maybe slightly more negative. I'm not sure how to term it, but I'll just draw out my things that I have down.

We've had some concerns about the overestimating approaches, especially related to compensable cases that came out in these first 100 cases but also related to this issue of if someone gets a second cancer and you use an overestimating approach the first time

1	through, then they get it back and their dose
2	gets lower and they come waving these two
3	things to the Advisory Board meetings and
4	saying, you know, "My husband" or whoever "got
5	another cancer. And my dose went down. You
6	know, how can this happen?"
7	MEMBER MUNN: Repeatedly.
8	CHAIRMAN GRIFFON: Right, right.
9	So, you know, we understand it, but from a
10	communications standpoint, from communicating
11	with the public and fairness, you know, not
12	fairness but just clear communications with
13	the public, that's been a little problematic.
14	MEMBER MUNN: I'm almost sure that
15	is never going to be cleared up entirely.
16	CHAIRMAN GRIFFON: Yes, I know. I
17	know. I mean, I actually have some little
18	thoughts here, but this is probably some of
19	it is a little bit hindsight at this point
20	maybe.
21	MEMBER MUNN: I'm not sure whether
22	we help or hinder that communication in what

we do, but I don't think that is going to go away.

Yes. I mean, this is kind of probably a little late to throw out there, but one notion that I have had kicking around in my head for a little while was that maybe the overestimating approach should never have been used for anything but survivor claims because then they're obviously never going to get another cancer, you know.

But, you know, at this point all I'm prepared to say is that it's been kind of an issue. And it's more of a communication issue. It's not that we're saying NIOSH did anything inappropriately from a scientific standpoint but as a communication issue.

Other items that I have on my
list, Wanda, just for your thoughts -- and
maybe we can all just take this as homework
and take the draft and either add text in and
I can roll them together, we can do something

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1	like you know, however you want to work
2	this, but I have quality down and equity.
3	Again, I am not sure exactly. I
4	know that quality issues came up in the first
5	100 cases' reviews. I know the question of
6	equity continues to come up.
7	MEMBER MUNN: That's pretty
8	subjective.
9	CHAIRMAN GRIFFON: Yes. And these
10	tend to be lesser as I go down my list, I
11	think. And these are just like brainstorming.
12	I'm not sure if these would even make a draft,
13	let alone a final.
14	MEMBER MUNN: Quality certainly
15	ought to be in there if we haven't done an
16	adequate job of addressing the quality. I
17	thought that was one of the things that we had
18	attempted earlier.
19	CHAIRMAN GRIFFON: Yes. And then
20	it gets into how because quality is in this
21	report. So it may not rise to the level of
22	putting it in this beginning section, you

1	know. It's already in the report. There is
2	a section about quality.
3	MEMBER MUNN: Yes.
4	CHAIRMAN GRIFFON: Let's see. And
5	the last item I have, but I think this also
6	comes out more in the findings, is the best
7	estimate cases, the cases that were near 50
8	percent, 45 to 50 percent. My note says
9	and this I would have to check this for sure,
10	but I think it was four out of five or three
11	out of five, fairly subjective here but I said
12	required extensive revisions due to the audit.
13	And, you know, at the end of the
14	day, they weren't flipped if they didn't go
15	over 50 percent, but they were significantly
16	revised from the initial report. That was
17	just a note I made.
18	MEMBER MUNN: That's a pretty
19	significant number.
20	CHAIRMAN GRIFFON: Excuse me?
21	MEMBER MUNN: That's a pretty
22	significant number.

1 CHAIRMAN GRIFFON: Right, four to five of them. But I think three of them were 2 Savannah River because they were all at the 3 4 same site, you know. So that's one to think 5 about. I don't know if you had anything 6 7 Wanda, that you were thinking about as far as value or implications of the work that's --8 9 MEMBER MUNN: If I had at any time 10 had such thoughts in my mind, they are certainly not lodged there very deeply now. 11 12 I continue to have concerns and probably am of 13 the outlying opinion with respect to these reports and how extensive they should be. 14 15 I know that Paul and I think you 16 also believe that these reports should be quite extensive and that they should serve as 17 a truly official document and communication to 18 19 the Secretary in very thoroughly identifying what it is that we have done. 20 It may be even more crucial that 21

that happened now with a new Secretary coming

1	in, but my philosophy for all reports is that
2	brevity is the soul of precision and that the
3	less we say and the more concisely we say it,
4	the more likely it is to be factored into easy
5	communication with the individual or
6	individuals who are our target audience.
7	So I still continue to pump for
8	brevity, despite the fact that I know that is
9	a minority opinion here.
10	CHAIRMAN GRIFFON: Well, it only
11	is. It's a five-page report. I do hear what
12	you're saying. And that might be part of the
13	reason of having this sort of executive
14	summary up top. And if they want to look
15	further for more details? But at least this
16	gives them a paragraph or two overview of what
17	we did with this work. I hesitate.
18	DR. MAURO: No. Nothing specific,
19	as a general.
20	CHAIRMAN GRIFFON: Yes.
21	DR. MAURO: I understand what you
22	are trying to do. And I think, like you, I

think about these things. And we are always looking at it from the inside out. That is, we are in the middle of a process, and we're thinking about all the fine structure.

But I would say to myself, what do you think the questions would be that the Secretary of HHS would ask you? In other words, let's say the Secretary walked in this room right now and wanted to get a 15-minute rundown. And let's say you had a series of questions. Break yourself clear of being inside the box because right now we are inside just thinking about the programs the last five years and all the findings and all the charts in the back.

I would sooner say, you know, "What do you think he would want? What would the questions he would need?"

MEMBER MUNN: Well, and I think what do you think the Secretary would want is really and truly the crux of the question.

Certainly I don't know what the rest of you

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1	would do, but if I were sitting in the
2	Secretary's chair, the only thing I would
3	really want to know is, is this doing any
4	good? Are we doing this right?
5	Other than that, everything else
6	is in the details. And that's why the Board
7	and the agency and the contract exist. Are we
8	doing okay?
9	CHAIRMAN GRIFFON: I don't even
10	know, though. If you say are we yes. Who
11	is we? But also are we doing this right or is
12	NIOSH doing this right? You know, I think
13	from the claimant's standpoint, if we were
14	compensating 100 percent of the people, they
15	would say, yes, they are doing it right, you
16	know.
17	MEMBER MUNN: Well, the claimants
18	are not the only ones who would say that.
19	CHAIRMAN GRIFFON: What?
20	MEMBER MUNN: The claimants are
21	not the only ones who would say that.
22	CHAIRMAN GRIFFON: Right, right.

1 MEMBER MUNN: That isn't my point. The point is, is this being done correctly 2 under the aegis of the law? 3 4 DR. MAURO: Yes. 5 MEMBER MUNN: Is what we are doing here, "we" being the collective we who are 6 7 involved in this statute, are we doing what the statute requires us to do? And is it 8 9 getting anywhere? Those are really the only 10 two issues. CHAIRMAN GRIFFON: Yes. The first 11 part of your question was, is it doing any 12 13 good? And that's different than I guess doing 14 it scientifically right, you know. MEMBER MUNN: Well, is it doing it 15 16 in accordance with the statute, with the requirements of the statute, not the intent of 17 one of the legislators, not with the intent of 18 19 any one of the administrators? Is this 20 meeting the letter of the law? And is this being done properly? This is a key question. 21

I am not sure whether we get to

that point. We talk about what we have done.

And we evaluate it to some degree. But I am not sure we are very clear in response to what I feel is the overriding question that a person at the top of the responsibility chain would want to hear.

CHAIRMAN GRIFFON: Right, right.

And I think part of the reason I in the first draft of this sort of avoided this question was that, you know, the answer is unanswerable, I guess, because of all the limitations of the first 100 cases.

That is what we have been through before, is that we did all overestimates, underestimates. Ninety-five out of 100 were overestimates, underestimates. You know, so I guess that was my -- you know, how much conclusions can we draw from those big questions like you are asking, Wanda? Are we meeting the letter of the law?

Well, based on -- you know, we would have to qualify that in so many ways.

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1	I'm not sure that would be a satisfactory
2	answer if I were on the receiving end of it,
3	you know.
4	MEMBER MUNN: Not a lot of
5	qualifications. Was this done the best way
6	that could be done at the time given the
7	circumstances and the information that was
8	available?
9	CHAIRMAN GRIFFON: But I'm saying
10	our sample doesn't tell us that answer.
11	That's what I'm saying.
12	MEMBER MUNN: No, no, it doesn't.
13	CHAIRMAN GRIFFON: Right.
14	MEMBER MUNN: That's why in my
15	view we need to qualify it in that way.
16	MR. KATZ: Can I give you a
17	government perspective? It is going to be a
18	government person who is receiving this
19	report.
20	MEMBER MUNN: Yes.
21	MR. KATZ: I mean, if I were the
22	Secretary, I would still want to know. I

1 mean, we have been at this for five years or whatever it's been, six years, whatever. 2 CHAIRMAN GRIFFON: How long. 3 4 MR. KATZ: Whatever, quite a 5 And you have been reviewing dose while. reconstruction cases for this period. So I 6 7 mean, I think still -- and the Board has a very specific charge to evaluate the quality 8 and validity of the dose reconstructions 9 10 within the context of what they are supposed to do, these dose reconstructions. 11 So I mean, I think you can have a 12 13 very general summary statement up front that gives the answers that can be given, given the 14 15

very general summary statement up front that gives the answers that can be given, given the nature of the complexion of the cases reviewed. And you have to consider that in the context of the complexion of the cases that get done in this program, too, because many of the cases are underestimates and overestimates.

You know, if 70 percent of the cases were overestimates and underestimates,

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you need that context, too, of all of the cases.

CHAIRMAN GRIFFON: Right.

DR. MAURO: So I think you could talk, I mean, pretty briefly about give that appropriate context and then the nature of the cases that have been reviewed in these five years and what you have found with respect to those cases as to-- is the quality and validity of them adequate for the purposes and so on and where there are issues, what those issues are very briefly. And then what's ahead would be the rest of your summary. Now we're getting into these different nature cases.

And so they can expect sort of what the path is down the road for --

MEMBER MUNN: And that's --

DR. MAURO: I would think that you could do that very briefly in a page abstract at most or two-thirds of a page. And that would be very helpful to the Secretary to know sort of where we stand.

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1 MEMBER MUNN: And the second set of 500 cases will be viewed differently. 2 MR. KATZ: Delve into some issues 3 4 that, you know, are still on the path. DR. MAURO: And the wisdom of 5 starting off with the low-hanging fruit. 6 7 know, certainly strategic judgment was made early on that when we come at this problem, 8 9 we're going to go after the min/max. 10 I mean, there's a certain amount of -- a judgment could be made by the Board as 11 12 to whether that strategy was a healthier 13 strategy, I think. I'm sorry to jump around here. 14 15 MEMBER MUNN: It remains valid. 16 The attempt to resolve as many of these cases as possible as early as possible was a 17 18 directive not just from the statute itself but 19 from the desires of the Board. That's what we 20 all wanted to do is clear as many of them as we possibly could as early as we could, sooner 21

22

than better.

1	MR. KATZ: Stu, does the workgroup
2	have sort of statistical breakouts? Are they
3	a picture of how many of all dose
4	reconstructions are min/max?
5	MR. HINNEFELD: Kathy Behling has
6	kind of kept something like that. I don't
7	know -
8	MR. KATZ: Kathy, are you there?
9	MR. HINNEFELD: if it's current
10	or not, but
11	CHAIRMAN GRIFFON: Oh, cases
12	reviewed, but he's talking about
13	MR. KATZ: I mean all the cases
14	done.
15	CHAIRMAN GRIFFON: Kathy has the
16	cases reviewed, yes.
17	MR. HINNEFELD: Cases reviewed.
18	So what do you want?
19	MR. KATZ: I mean, the context of
20	the cases reviewed, in part, is what is the
21	CHAIRMAN GRIFFON: In other words,
22	is the

1	MR. KATZ: the nature of the
2	cases that get done in this program? So if 80
3	percent of the cases are min/max or 50
4	percent, whatever it is, that picture would be
5	helpful context for the Board to be able to
6	speak to what is found.
7	CHAIRMAN GRIFFON: Right, right.
8	MR. KATZ: So say
9	MR. HINNEFELD: I would bet there
10	would be I don't know that that -
11	MR. KATZ: You can run those
12	statistics, right, or not? Is it not coded
13	that way?
14	MR. HINNEFELD: I am trying to
15	figure out what would be databased that would
16	tell me that for sure. I mean, the only item
17	that comes to mind that was databased that is
18	something like that, which is the indication,
19	the type indication, that the reviewer puts on
20	when he approves the dose reconstruction,
21	where he says it's full internal and external

overestimate of this kind, overestimate of

that kind.

There is not really a lot of guidance out there on what to choose. And people tend to choose things differently, like some may choose the Bethlehem Steel site profile approach as being an overestimate because it's a friendly -- you know, it's a high site profile, where others would say that's the only approach we've got as a poll. Let's poll internal and external.

So there's not a lot of -

CHAIRMAN GRIFFON: We may not need the exact numbers, though. I get your point. It's not like it's a 50/50 breakup. It's best estimate and over and underestimate.

MR. HINNEFELD: I can run that.

CHAIRMAN GRIFFON: Yes.

MR. HINNEFELD: It's a fairly easy thing to run. The breakdown by probability of causation, so you can see how the probability of causations tend to be at the very low end or -- well, actually, it kind of fakes you out

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1	because it is just everything above the 51
2	bar.
3	So the probability of causations
4	tend to be sort of low end and are fairly
5	modest as you go up higher. So there are some
6	things like that that can be done.
7	CHAIRMAN GRIFFON: That are
8	indicators anyway, yes.
9	MR. HINNEFELD: And I could run if
10	you're interested in that full internal and
11	external versus all the various kinds of over
12	and underestimates, I could run that. I mean,
13	I can set it up, but I won't actually do the
14	running of them. It can be done.
15	CHAIRMAN GRIFFON: Yes. It
16	wouldn't hurt in terms of a given perspective
17	put our numbers in what cases we did.
18	MR. HINNEFELD: So do you want to
19	go over those things I mentioned or do you
20	want to just go with Larry's last presentation
21	to the Board or the
	1

CHAIRMAN GRIFFON: We have that,

1	right?
2	MR. HINNEFELD: Yes.
3	CHAIRMAN GRIFFON: So we can look
4	at that. But also I think running the
5	overestimate the way people defined it, while
6	we know it is not perfect, it might give us ar
7	idea anyway.
8	MR. HINNEFELD: Do you want this
9	of all of the claims we have finished, rather
LO	than the ones available for
L1	CHAIRMAN GRIFFON: I think so
L2	because we are not going to quote this exact
L3	number necessarily.
L4	MR. KATZ: Just to give a sense.
L5	CHAIRMAN GRIFFON: Just to give a
L6	perspective of what yes.
L7	MR. KATZ: Of what the Board has
L8	reviewed compared to what the products are
L9	that are out there.
20	CHAIRMAN GRIFFON: Right. But
21	again, when you said a "summary," I mean, I

think we have got enough to go with or I've

got enough to make a first cut. And maybe with everyone's input, you know, we can work with redrafting like an executive summary paragraph in the front end of this.

Some of the things you just said said that they are -- I think they are in this report. They just probably need to be pulled out of the weeds and put into more of a summary fashion statement.

Sometimes, though, I mean, I will just say this up front because I see this coming down the pike. Sometimes when we try to boil down the language that was tortured over in the later paragraphs, that is where we got into trouble that we didn't get agreement. So we kind of went back to being very precise and sort of stating the facts.

You know, you start to summarize, and you start to get more subjective with your language. And that's why we ended up rolling into -- you know, I actually made some concessions and stated facts, instead of

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1	saying a large number, you know, start putting
2	adjectives in there. And people take offense
3	to one side or the other of certain issues.
4	But I will take a crack at it.
5	I think it is a good idea to give
6	a summary up front.
7	MR. KATZ: I mean, a Secretary is
8	not going to read a five-page report. The
9	Secretary will read that front piece.
LO	CHAIRMAN GRIFFON: Right, right,
L1	right. Yes. And if we grab his or her
L2	attention enough, it may go further. But
L3	MR. KATZ: His people will go
L4	further, his people.
L5	CHAIRMAN GRIFFON: The program is
L6	horrible. No.
L7	MR. HINNEFELD: Ted, what would
L8	you think of a report to the Secretary that
L9	accounted for the lack of consensus on the
20	Subcommittee or maybe lack of consensus on the
21	Board?

 $\ensuremath{\mathsf{MR}}\xspace$  . KATZ: Really, it is the Board

1	that will matter. It doesn't matter if there
2	is consensus within the workgroup.
3	MR. HINNEFELD: Let's say
4	CHAIRMAN GRIFFON: We mentioned
5	that, too. Paul mentioned that in the Board
6	meeting.
7	MR. HINNEFELD: Yes.
8	CHAIRMAN GRIFFON: Yes. So let's
9	take a shot at it. Let's hammer away at it.
LO	And maybe we can come. You know, I'm just
L1	saying we may have trouble concisely
L2	summarizing because we have, you know
L3	MR. KATZ: But I think it would
L4	speak well for the Board for the Board to be
L5	able to come to consensus on as much as
L6	possible, for the Board.
L7	CHAIRMAN GRIFFON: Yes. I agree.
L8	I agree, yes. I agree.
L9	MR. KATZ: So whatever the reality
20	Is is another issue.
21	CHAIRMAN GRIFFON: I mean, we came
22	to consensus on this five-page document. I

1	thought that was pretty good, actually.
2	MR. HINNEFELD: If there are other
3	statistical queries you want me to do you
4	think of just drop me a
5	CHAIRMAN GRIFFON: Okay. All
6	right. Wanda, is that all right from a
7	process perspective? I'll take
8	MEMBER MUNN: Yes. I think it
9	probably is, Mark. I would appreciate it if
10	you would just send me a quick e-mail after
11	we're done here with your list of items that
12	you
13	CHAIRMAN GRIFFON: Okay. I
14	have an old computer with me today. So it
15	might have to be tomorrow.
16	MEMBER MUNN: Well, your old
17	computer obviously is functioning better than
18	my new one.
19	CHAIRMAN GRIFFON: I just don't
20	have an internet access on this.
21	MEMBER MUNN: Oh, that's all
22	right. I seem to have eradicated my entire

1	Board file, so not to worry.
2	CHAIRMAN GRIFFON: No big deal.
3	Ted is getting me a new computer soon anyway.
4	MEMBER MUNN: Yes, right.
5	CHAIRMAN GRIFFON: It's going to
6	be fully loaded with all of our answers, I
7	hear.
8	MEMBER MUNN: Yes. And all of the
9	material that has been exchanged over the last
10	six years is on it.
11	CHAIRMAN GRIFFON: Yes, yes.
12	MEMBER MUNN: Yes.
13	CHAIRMAN GRIFFON: Okay. So I
14	think, Brad or Mike, you I mean, I will
15	take a first shot at this. But feel free to
16	send me like paragraphs or ideas that you
17	think, you know, "I think this should be in
18	your opening paragraph," you know, "Don't
19	forget about adding this in."
20	Shoot me some of that stuff if
21	you've got it. I'll try to put it together
22	and circulate a draft in the near future and

1	bring a draft back to the next meeting in
2	April that we can hopefully come to consensus
3	on as a group.
4	I'll get it to John as well. I
5	don't think he's on the line yet.
6	MR. KATZ: Another suggestion is
7	you may want to put up front what the Board
8	was charged to do, up front in that abstract.
9	CHAIRMAN GRIFFON: Right in the
10	executive summary?
11	MR. KATZ: Yes.
12	CHAIRMAN GRIFFON: Okay. We don't
13	want to get in too deep.
14	MR. KATZ: It's a sentence or two.
15	CHAIRMAN GRIFFON: Right.
16	MR. KATZ: But it makes sense to
17	have it up front.
18	CHAIRMAN GRIFFON: Yes.
19	MR. KATZ: So that is the charge
20	and
21	MEMBER MUNN: Well, that's kind of
22	what we do in the first

1	CHAIRMAN GRIFFON: That's what I
2	thought we did.
3	MR. KATZ: I don't have it in
4	front of me.
5	CHAIRMAN GRIFFON: Okay.
6	MR. KATZ: I'm just saying
7	MEMBER MUNN: Oh, yes. The first
8	paragraph says
9	CHAIRMAN GRIFFON: It may be more
10	than we want for that.
11	MEMBER MUNN: It cites the law
12	itself and says, "The President delegated to
13	the Secretary HHS shall establish an
14	independent review process." So all of that
15	language is there.
16	CHAIRMAN GRIFFON: A lot of that
17	is in there. We might be able to shorten it
18	up a little bit, but
19	MEMBER MUNN: "Advise the
20	President of the scientific validity and
21	quality of dose estimation and reconstruction
22	efforts."

1	CHAIRMAN GRIFFON: All right. All
2	right. So I think we will do that. And that
3	is our path forward on the report.
4	I am ready to go to the next item
5	if people are ready. Or do you want to take
6	five?
7	MEMBER MUNN: No.
8	CHAIRMAN GRIFFON: Let's see.
9	What did I have next? Case selection?
10	MR. KATZ: Yes.
11	CHAIRMAN GRIFFON: Case selection.
12	I'll be honest with you. I wasn't sure we
13	were going to get this far, but I don't know
14	if I have our original criteria in front of
15	me. Wanda, do you have that on your computer?
16	MEMBER MUNN: I am serious.
17	CHAIRMAN GRIFFON: I'm just
18	kidding.
19	MEMBER MUNN: I am serious. Every
20	item of my Board information that was not
21	compiled yesterday during our meeting is not
22	currently coming up for me. It's got to be on

1	here somewhere, but it is not where it is
2	normally filed. And so
3	CHAIRMAN GRIFFON: You know what?
4	I will ask. I guess I can ask right now. I
5	think one thing that I heard Kathy talk about,
6	which I think will be very useful for us, is
7	when we have it in the database because we
8	have had updates at certain points on how many
9	cases per site, things like that.
10	And we have I think an original
11	spreadsheet that I put together from the
12	original. You know, that was at a point in
13	time, though, of how many cases by site.
14	MEMBER MUNN: Oh, yes. We were
15	working by site.
16	CHAIRMAN GRIFFON: Yes.
17	MEMBER MUNN: We were working by
18	period of employment.
19	CHAIRMAN GRIFFON: Right.
20	MEMBER MUNN: We were working by
21	type of cancer. We were working by
22	CHAIRMAN GRIFFON: Years worked.

1	MEMBER MUNN: POC, yes.
2	CHAIRMAN GRIFFON: Total years
3	worked, yes. Yes, POC. Right. And I'm not
4	sure. Actually, I don't see much fault with
5	our criteria, but I don't have it in front of
6	me.
7	I guess I was going to say if we
8	wanted to for the next since we are having
9	one of these in April again, I could bring the
10	because we wrote out a selection criteria
11	document. And I could actually print that
12	out, forward that to the Subcommittee and look
13	at it specifically and see if we want to
14	update the criteria as a written document.
15	I think that is the product we
16	want to be able to bring back to the Board.
17	MEMBER MUNN: That is probably a
18	good idea -
19	CHAIRMAN GRIFFON: Yes.
20	MEMBER MUNN: although I
21	thought about those criteria from time to time
22	and was rather surprised that I thought we had

1	done a better than average job of identifying
2	the various aspects we needed to look at.
3	CHAIRMAN GRIFFON: Yes. We kind
4	of stumbled into filling a lot of the fields,
5	too, you know, accidentally or on purpose.
6	And then the other thing I guess to consider
7	would be the overall number, you know. Ted is
8	shaking his head violently on that one.
9	So that's the over-arching issue,
10	I think, of concern, is do we still want to
11	stick to the two and a half percent was
12	pretty arbitrary. It was based on Till's
13	assessment of the sister program there.
14	MEMBER MUNN: Well, yes. But that
15	is a fairly widely accepted
16	CHAIRMAN GRIFFON: Sample, yes.
17	MEMBER MUNN: valid number.
18	CHAIRMAN GRIFFON: Yes, yes.
19	MEMBER MUNN: So it isn't as
20	though we just picked it out of the
21	CHAIRMAN GRIFFON: Oh, yes. It
22	wasn't without basis, yes. But we can see

1	what that I don't know right now what that
2	means in terms of how many total cases are in
3	the system. I don't know offhand.
4	MEMBER MUNN: Twenty-six thousand
5	the last time.
6	MR. HINNEFELD: Well, if you are
7	talking about referrals, I mean, the number of
8	cases that have come over to us, we are at
9	29,000.
10	CHAIRMAN GRIFFON: Twenty-nine
11	thousand now.
12	MR. HINNEFELD: In terms of number
13	of dose reconstructions completed, it's, oh,
14	five to six thousand less than that probably.
15	It's over 20,000 have been done.
16	CHAIRMAN GRIFFON: Right.
17	MR. HINNEFELD: And then how many
18	are available for adjudication I don't know or
19	have been adjudicated and available to you I
20	don't know. Something that
21	CHAIRMAN GRIFFON: So that would
22	750 if we based it on 30,000, right? It would

1	be two and a half percent of all the cases?
2	Ten percent would be 3,000. And a quarter of
3	that, yes.
4	MR. KATZ: I mean, you might
5	consider, for example, do you need to double
6	your rate just to get within
7	CHAIRMAN GRIFFON: Right. And
8	that has implications on SC&A and whether they
9	have
10	MR. KATZ: Sure.
11	CHAIRMAN GRIFFON: the
12	person-power.
13	MR. HINNEFELD: I think 3,000
14	completed cases a year has certainly been
15	attained for the last several years.
16	CHAIRMAN GRIFFON: By NIOSH, yes,
17	yes.
18	MR. HINNEFELD: Well, in fact,
19	more than that, more than that. I don't
20	remember the numbers right offhand. I think
21	Larry may have put them in his last
22	presentation, in fact. I don't know I have

1	that
2	CHAIRMAN GRIFFON: Yes.
3	MR. HINNEFELD: To give you an
4	idea
5	MEMBER MUNN: So you are thinking
6	less than 4,000, though?
7	MR. HINNEFELD: I don't know. It
8	might be more than that. Let me see what I
9	can find.
LO	MEMBER MUNN: Well, you know, if
L1	you were talking 4,000 cases a year, we're
L2	still talking about 100, 2.5 would be 100.
L3	DR. MAURO: We've been doing 60.
L4	SC&A has been doing 60.
L5	MEMBER MUNN: Yes.
L6	CHAIRMAN GRIFFON: Right, right,
L7	right. But we have talked in the past about
L8	upping that. John looks like he needs a
L9	little more workload, right?
20	DR. MAURO: I'll take it.
21	CHAIRMAN GRIFFON: Yes, yes.
22	MEMBER MUNN: At the risk of

1	adding the possibility of one more evaluation,
2	which pains me just to even think about it,
3	but if we were able to look at the cases that
4	we have done, the findings that have developed
5	and make some subjective evaluation with
6	respect to the types of findings that we're
7	finding, whether there is a trend there, if we
8	can identify whether there are any trends,
9	then that might affect our decision with
10	respect to both the type and number of
11	CHAIRMAN GRIFFON: Yes. That is a
12	good point.
13	MEMBER MUNN: what we need to
14	do. But this business of identifying trends
15	with this kind of data just at first look
16	appears overwhelmingly difficult to do. I'm
17	not sure whether that's even an achievable
18	thing.
19	Certainly if one considers no drastic
20	expansion of staff support or anything of that
21	sort, I don't know how we can do that.

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CHAIRMAN GRIFFON: Well, that's a

1	good idea anyway. And maybe having the
2	database, having all of the cases on the
3	database is a starting point anyway. At least
4	we will have something that we can query from.
5	But I agree with you. It may be
6	difficult to see trends, but it is a good idea
7	in theory.
8	MEMBER MUNN: Kathy has something
9	going on in her head. I can tell.
10	MS. BEHLING: This is Kathy.
11	Actually, early on and it may have been
12	maybe a second or third presentation that I
13	made to the Board. And this would be after
14	our third set of cases or so. I did attempt
15	to put together some evaluation of exactly
16	this type of thing. What were our findings?
17	How could we group those findings?
18	It was difficult to do back then
19	because in some cases it's difficult to
20	categorize them specifically. But I know I
21	had done that early on.

It would be a fairly difficult

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1	task at this point, but I could possibly go
2	back and look at what I had presented to the
3	Board.
4	And that was, like I said, several
5	years ago with some of the earlier cases. And
6	I could present that.
7	CHAIRMAN GRIFFON: Yes. That
8	would be useful. Maybe we can update it with
9	what we have now, too.
10	MS. BEHLING: Okay. The other
11	thing I wanted to just mention with regard to
12	the criteria that you all have been using, I
13	believe that initially in your letter to the
14	Secretary, you were going to include
15	statistics at the end.
16	And if you look at that attachment
17	and those statistics, that identifies in each
18	one of those what the criteria, what the
19	initial criteria, was for the Board.
20	And I can provide you with you
21	had sort of a flow diagram. I still have that
22	with almost a handwritten type of thing that

1	I still have for the initial criteria that was
2	selected by the Board.
3	CHAIRMAN GRIFFON: Okay. So I
4	have your attachments, and they are a part of
5	the right now, anyway, we were going to
6	have them as part of the report depending on
7	the Board's wishes as far as the length of the
8	report. But I have those attachments.
9	Is it something different than
10	those attachments?
11	MS. BEHLING: I do have one other
12	document that I believe we were initially
13	given when we were granted this contract.
14	CHAIRMAN GRIFFON: Okay.
15	MS. BEHLING: And I will scan
16	that, in fact, e-mail that
17	CHAIRMAN GRIFFON: All right.
18	MS. BEHLING: over to you also.
19	CHAIRMAN GRIFFON: Okay. It might
20	be the flow chart from our yes, send that
21	to me. And for the next meeting, I will also,
22	like I said, circulate this. I know somewhere

1	in my archived files I have our original
2	selection criteria that we came up with as a
3	workgroup at that time, I think.
4	MS. BEHLING: Right. And once we
5	see the database, as I said, I included a
6	statistics tab that is supposed to cover each
7	of the areas where you were looking to achieve
8	some you know, you had a goal to achieve
9	for the different criteria.
10	CHAIRMAN GRIFFON: Okay. Thank
11	you, Kathy.
12	MS. BEHLING: You're welcome.
13	CHAIRMAN GRIFFON: Other comments?
14	I guess we'll so I'm pushing this to the
15	next meeting. And with all of those things we
16	just mentioned, we will try to bring those to
17	that meeting or get them to people prior to
18	the meeting for consideration. So we'll take
19	this up again at the next meeting if that is
20	okay.
21	MEMBER MUNN: That's going to be

1	CHAIRMAN GRIFFON: Yes.
2	MEMBER GIBSON: I think that
3	presentation Kathy was just talking about, she
4	sent it out as a PowerPoint back in April of
5	'07.
6	CHAIRMAN GRIFFON: April of '07
7	you think? Okay.
8	MEMBER GIBSON: I have it here.
9	CHAIRMAN GRIFFON: Yes. If you
10	can forward it to people, that would be great.
11	And maybe forward it to Kathy to make sure
12	it's the same one she's thinking about.
13	MS. BEHLING: That's a good idea.
14	CHAIRMAN GRIFFON: Yes. Yes.
15	MS. BEHLING: Thanks.
16	CHAIRMAN GRIFFON: Okay. This
17	might be a good time as a break point. Let's
18	take like ten minutes and reconvene. And
19	we'll start in on the eighth set, make sure
20	everybody has it on their computers and start
21	up on the eighth set. Is that okay?

MEMBER MUNN: Okay.

1	CHAIRMAN GRIFFON: All right.
2	MR. KATZ: Okay. I am going to
3	just put the phone on mute.
4	(Whereupon, the above-entitled
5	matter went off the record at 2:01
6	p.m. and resumed at 2:14 p.m.)
7	MR. KATZ: Wanda, are you back?
8	MEMBER MUNN: Yes, I am.
9	MR. KATZ: Great.
10	CHAIRMAN GRIFFON: Okay. We are
11	ready to start up again, our final topic on
12	the agenda, actually. I don't really expect
13	that we are going to make it all the way
14	through the eighth set of cases, the matrix.
15	It's 64 pages. But we will do what we have
16	done in past meetings.
17	This is our first cut through with
18	the eighth set of cases. We have gotten
19	responses, I think, for all. There may be
20	some that
21	MR. HINNEFELD: I won't guarantee
22	there's one for all of them.

1	CHAIRMAN GRIFFON: Right.
2	MR. HINNEFELD: We got a group of
3	them together, and we sent them on.
4	CHAIRMAN GRIFFON: Right, right.
5	We have most of the responses, I think, from
6	NIOSH in here at this point. So it's a good
7	time to start out with this.
8	I guess we will do like we always
9	do. If, Doug or John, you guys can sort of
10	summarize the finding? And then NIOSH can
11	explain the response. And then we'll have our
12	discussion.
13	DR. MAURO: Sure.
14	CHAIRMAN GRIFFON: All right. So
15	start off with 149.1 is the first one.
16	DR. MAURO: Yes. It's Bridgeport
17	Brass, women who developed breast cancer. And
18	the dose reconstruction was performed using
19	the Bridgeport Brass Adrian laboratory
20	exposure matrix.
21	By the way, we did have a formal
22	review of that as a separate part of the

1	eighth set. I guess eventually under a
2	separate venue, we will look at those what I
3	call many site profile reviews.
4	MR. HINNEFELD: However you guys
5	want to do it. We have added some responses
6	to our matrix.
7	DR. MAURO: Okay.
8	MR. HINNEFELD: So we have added
9	some. I'm not sure Bridgeport is one of them.
LO	DR. MAURO: So what I will quickly
L1	go through, so here we have a woman. She was
L2	assigned an external exposure using exposure
L3	matrix. And you folks have used a very
L4	claimant-favorable strategy, pooled all of the
L5	film badge data, took off the upper 95th
L6	percentile. And you are applying that across
L7	the board.
L8	And it is in our opinion by the
L9	way, this woman was compensated. Okay? And
20	in our opinion, this is a strange finding
21	because we don't always go this direction.

I don't know if I could tell you

her occupation because I will start to zero in and you can identify who she is. But she had an occupation which would not put her up close and personal to the extrusion activities.

And so in my opinion, you probably have assigned her an extremely favorable dose: external dose and internal dose. And she was compensated. So interestingly enough, our finding with regards to this person is you probably -- this is probably a substantial overestimate -- if there is any place where you would say maybe the median dose would apply.

Here is a case where you elect to universally apply the upper 95th percentile, you know, every year after year, which is quite a conservative assumption in and of itself, even for a person who is working in an operational setting.

Here you applied it to a person
who is not -- I couldn't envision the [Identifying
Information Redacted] always being on the operational

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1	floor.
2	CHAIRMAN GRIFFON: Almost too
3	conservative you are saying?
4	DR. MAURO: Yes.
5	CHAIRMAN GRIFFON: Yes.
6	DR. MAURO: To the point where now
7	see, that's what we basically found about
8	that goes for both internal and external.
9	We were going to be able to quickly go through
LO	these. We do have some concerns regarding the
L1	matrix. And whether or not you want to talk
L2	about that now
L3	CHAIRMAN GRIFFON: Sure. Yes. I
L4	think we can do it. You put your thing at the
L5	bottom, I think, of this matrix, Stu.
L6	MR. HINNEFELD: Bridgeport was one
L7	of them.
L8	CHAIRMAN GRIFFON: Bridgeport is
L9	one of them.
20	DR. MAURO: Yes.
21	CHAIRMAN GRIFFON: I see it listed
22	at the bottom.

1	MR. HINNEFELD: Okay.
2	CHAIRMAN GRIFFON: Attachment 1,
3	finding 2 or something like that.
4	MR. HINNEFELD: Okay.
5	DR. MAURO: What we can do when we
6	get down there because we
7	MR. HINNEFELD: We can jump down
8	
9	CHAIRMAN GRIFFON: Since we are
10	talking about Bridgeport, I think it is easier
11	to stay on Bridgeport, instead of
12	DR. MAURO: So as far as 1.1, I
13	mean, basically think of it like this. You
14	have external full-time. You have external
15	non-penetrating. And these are the different
16	findings, both of which you employ the upper
17	95th percentile. It is certainly extremely
18	claimant-favorable to apply that to this
19	person.
20	That would be 149.1.
21	CHAIRMAN GRIFFON: No. Your 1.1
22	says the derived value is low by a factor of

1	two.
2	DR. MAURO: Right. That goes
3	toward the exposure matrix.
4	CHAIRMAN GRIFFON: Matrix more
5	than the case.
6	DR. MAURO: Yes.
7	CHAIRMAN GRIFFON: Right. I
8	understand that.
9	DR. MAURO: And we will get there
10	later, but the reason we felt that when you
11	took your pool data and you selected the upper
12	95th percentile, you derived it, claiming that
13	it was correlated data. That is, you didn't
14	just take all of the data and pool it. You
15	said that they're correlated by person. So in
16	other words, it is really a distribution of a
17	person's annual data.
18	And that would be the right way to
19	do it because think of it like this. If you
20	took everybody's weekly exposure and put it,
21	everyone in the numbers, and put it into one

big pot and then build a model and talk off

the upper 95th percentile, what might happen is the upper 95th percentile may underestimate what the upper 95th percentile dose is to a real person because the real person may always -- we reran and correlated it. We had a statistician run it as correlated data.

CHAIRMAN GRIFFON: Yes.

DR. MAURO: And when we did that, we came up with an upper 95th percentile that was twice your value. So though you claim in the matrix that you processed your data in a correlated way, we were only able to match your numbers when we processed your data in an uncorrelated way. When we did it in a correlated way, we came up with numbers that were twice as high.

Of course, it's irrelevant as applied to this particular case because she was compensated anyway.

CHAIRMAN GRIFFON: Yes. We're talking about matrix.

DR. MAURO: So now we're in the

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1	matrix territory. That goes not only for
2	penetrating but also non-penetrating. So that
3	covers, well, 149.1. I believe that's also
4	149.2. Let's see what the next one is.
5	CHAIRMAN GRIFFON: Well, let's
6	see.
7	DR. MAURO: Yes.
8	CHAIRMAN GRIFFON: Can we stop at
9	1 at least?
10	DR. MAURO: Oh, yes. Sure. Yes.
11	CHAIRMAN GRIFFON: I want to hear
12	what NIOSH has to say about that one.
13	DR. MAURO: Yes.
14	MR. HINNEFELD: Well, our response
15	talks about the different method of generating
16	how the 95th percentile was generated and
17	seems to indicate that we understood how you
18	generated yours and that because of the way
19	ours was generated, that's why we cannot get
20	numbers physically in generation.
21	From reading your finding, it's
22	not clear to me that we really understand each

1	other, how we did it. If you've got a
2	response?
3	DR. MAURO: No.
4	MR. HINNEFELD: Okay. The
5	response we wrote well, here. Let me just
6	go through it.
7	CHAIRMAN GRIFFON: The one right
8	here, right?
9	DR. MAURO: This one?
LO	MR. HINNEFELD: Yes. It's NIOSH
L1	response. It's in the matrix.
L2	CHAIRMAN GRIFFON: I thought you
L3	might have been referring to another separate
L4	document.
L5	MR. HINNEFELD: No. This is it,
L6	that there was apparently a combination of the
L7	various two-week periods. It almost now,
L8	John, in your discussion of you know, there
L9	is no discussion here about correlated,
20	uncorrelated.
21	DR. MAURO: It's in the main body
22	where you talk about correlated.

1	MR. HINNEFELD: So yes. It could
2	very well be in your report, yes. But I mean,
3	here in the response, there is no discussion
4	of it.
5	So I think that we may be facing a
6	situation where we have got to
7	CHAIRMAN GRIFFON: Share those.
8	MR. HINNEFELD: make sure we
9	are both clear on how we did this.
10	DR. MAURO: Yes. In our report,
11	we show you exactly how we got our numbers.
12	MR. HINNEFELD: Okay.
13	DR. MAURO: We ran it both ways.
14	We ran it both correlated and uncorrelated.
15	MR. HINNEFELD: Yes.
16	DR. MAURO: Now, what we concluded
17	was that since our uncorrelated numbers
18	matched yours exactly, we felt that, even
19	though you said you did it in a correlated
20	way, we don't think you really did.
21	MR. HINNEFELD: Okay. Where on
22	your

1	DR. MAURO: It's in the main. You
2	have to go to the actual report.
3	MR. HINNEFELD: Yes. I'm in your
4	report.
5	DR. MAURO: There should be a
6	discussion there on correlated/uncorrelated.
7	CHAIRMAN GRIFFON: When you say,
8	correlated, just tell me again. You're
9	talking about an individual's dose by year?
LO	DR. MAURO: Yes. In other words,
L1	yes. And you're getting
L2	CHAIRMAN GRIFFON: You're getting
L3	a distribution of all of the different
L4	individuals, right?
L5	DR. MAURO: Exactly.
L6	CHAIRMAN GRIFFON: As was
L7	uncorrelated, it was just the badge data.
L8	DR. MAURO: This is badge data
L9	because one person may very well have a job.
20	CHAIRMAN GRIFFON: And with
21	correlated, you got higher values?
22	DR. MAURO: You get a factor of

1	two higher, yes. Right.
2	CHAIRMAN GRIFFON: I wouldn't have
3	guessed that, actually.
4	DR. MAURO: Yes. And Harry did
5	it. I didn't know about this.
6	CHAIRMAN GRIFFON: I wouldn't have
7	guessed that because I would have thought the
8	badge data I don't know. I'm not sure I
9	can assume either way.
LO	DR. MAURO: Well, you know, I
L1	think we probably need to communicate more on
L2	this one.
L3	CHAIRMAN GRIFFON: Yes. I'm sure
L4	the
L5	DR. MAURO: And it should be part
L6	of not so much this case, but it should be
L7	part of the generic review of the
L8	CHAIRMAN GRIFFON: Yes, for
L9	correlated. Yes.
20	DR. MAURO: So I was expecting to
21	get there with it.
22	MR. HINNEFELD: Is it maybe in

1	that section of your report? I don't
2	DR. MAURO: It is not in the
3	report?
4	MR. HINNEFELD: I don't see it in
5	the findings part.
6	DR. MAURO: I'd have to open up my
7	report and see if I can find it. I wish Harry
8	was on the phone.
9	MR. HINNEFELD: I have heard of
10	discussions in our office about correlated
11	versus uncorrelated data
12	DR. MAURO: Right.
13	MR. HINNEFELD: and the impacts
14	that having correlated data would have on a
15	Monte Carlo.
16	DR. MAURO: Yes.
17	CHAIRMAN GRIFFON: And so I know
18	that it is an issue. I don't know how it
19	would go exactly. Let's see. That would be
20	in your it would probably be in the last
21	book. Let's see.
22	DR. MAURO: This might not be an

1	actual case.
2	MR. HINNEFELD: Yes.
3	DR. MAURO: It might be in
4	attachment 1.
5	MR. HINNEFELD: Yes.
6	DR. MAURO: I would have to go
7	look at it.
8	MR. SIEBERT: That must be the
9	case. Yes, it must be.
10	DR. MAURO: It may not be because
11	I think that the way we said it in here is
12	that we came up with a number that was in
13	fact, the actual words we used when we did
14	this case was we came up with a factor of two
15	higher. We don't know why. That's what the
16	words are right now on this write-up.
17	And later when we did the more
18	formal review of the exposure matrix for
19	Bridgeport Brass, you know, that's where we
20	uncovered the factor of two. And we think it
21	has to do with correlated versus uncorrelated.

MR. HINNEFELD: Okay. Yes. The

1	discussion of correlated versus uncorrelated
2	is
3	DR. MAURO: Is in the
4	MR. HINNEFELD: Okay. Now, I
5	don't know if we say anything about that in
6	our report, which would be in the matrix.
7	DR. MAURO: And I think your
8	statisticians will have to look at that and
9	see if they agree or not. There may be more
10	to the story. There may be. You know, we
11	just happened to see, oh, we matched it when
12	it was uncorrelated and just don't have
13	anything
14	CHAIRMAN GRIFFON: Okay. I put
15	that as an action for you, Stu, to have NIOSH
16	review SC&A's analysis.
17	MR. HINNEFELD: It appears we
18	haven't provided a response on the findings.
19	DR. MAURO: On those.
20	MR. HINNEFELD: At least it is not
21	in this one.
22	CHAIRMAN GRIFFON: I was just

1	going to say as I am tracking these things,
2	the way I am putting this right now for 149.1
3	and .3, .3 is your
4	DR. MAURO: Is the other one.
5	CHAIRMAN GRIFFON: Yes. The way I
6	am putting that is that NIOSH is going to
7	review this, no effect on this case since the
8	case was compensable. Now, for 149.2, it is
9	going to be different because that is the
LO	question, is the 95th the right choice for
L1	this work?
L2	DR. MAURO: For this person.
L3	CHAIRMAN GRIFFON: For this job.
L4	DR. MAURO: Yes. That's good.
L5	Good.
L6	CHAIRMAN GRIFFON: So okay. So I
L7	think we can go on to that number 2 now.
L8	DR. MAURO: Well, they have
L9	answered that. Yes. Right. They haven't
20	answered the 2.
21	CHAIRMAN GRIFFON: Yes, 149.2. I
22	guess the question that I have from the way

John presented it is, is this the right selection? Oftentimes if you're clearly not in the RAD area, you do select the whole distribution, at least, or even ambient those models, so in this case you assign a 95th, it seems to be a bit conservative for this job.

MR. HINNEFELD: Well, I know why we would do it. It's because when you start deciding that you are going to parse people up by job title and have certain people get this because you're doing a dose model anyway. The only difference would be you would have two dose models, instead of one, or maybe even more than two.

When you start to parse people out

by job title, first of all, there are a lot of

cases where you don't have a job title. So

you may have a nurse that you have their job title and
another nurse whom you don't have their job title.

One gets the high model. If you don't have a job title, you give them a high model. So then one gets the high model. Then

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we'll get the low model. That's one fundamental difficulty of parsing your models up by a job title.

The other one is that a job title and the exposure that goes with the job title are not intuitive all the time. You know, it's difficult to make that. And you absolutely will get objections from people who are in the low model, saying, you don't understand what I did.

CHAIRMAN GRIFFON: Oh, yes.

MR. HINNEFELD: Now, I don't know

for an industrial [Identifying Information Redacted].

You would think the [Identifying Information

Redacted] would spend the majority of the day in

the dispensary. We don't know for sure, you

know, things like that.

So there are certain, I think,
when we are thinking correctly on our part,
there is a certain reticence in dividing these
dose models up based on job title. And that's
essentially what our response is.

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1	Plus, we don't know. Maybe this
2	stuff was tracked all over the place. We have
3	heard examples of break rooms and lunch rooms
4	being affected by the material they were using
5	in the room that
6	DR. MAURO: I would agree with
7	internal because the airborne activity could
8	find its way everywhere. External you've got
9	a pretty high dose here.
10	MR. HINNEFELD: Yes.
11	DR. MAURO: You have to be pretty
12	close to the middle. I mean, we're talking
13	uranium.
14	MR. HINNEFELD: Yes. I know. I
15	know. I just think, in general, I think when
16	we're thinking correctly, there is certain
17	reticence to try to parse that out very much
18	based on job title. And essentially that is
19	what we said. We have kind of laid out a
20	series of reasons why. A lot of times we are
21	not very comfortable with trying to do that.

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MEMBER MUNN: Well, yes, but there

is a great deal of value in what you just said. By the same token, when you know certain things about a specific site and about the people who work there, then it would seem reasonable for us to make the best scientific judgment based on the information we have, rather than being unduly concerned about the feedback from other people with similar kinds of job descriptions, either on that side or elsewhere.

We are going to have that, I suspect, regardless of whether those decisions are made. And it's one of the problems that would face, I would think, the dose reconstructor under any circumstances. To be able to make some value judgment was my understanding was part of the job.

And this is one of those cases where given a significant difference in what is likely to have been the case, it appears that SC&A has a valid issue with respect to this particular person.

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And one can't say that about

[Identifying Information Redacted] anywhere or

everywhere else other than here, you know, the

materials that are involved on this particular site.

And one can certainly make some good judgments about

it.

It's sort of a moot point at this juncture since this was a principal case in any event, but as a matter of principle and policy, it doesn't seem reasonable for us to take the position that dose reconstructors cannot make that kind of evaluation.

DR. MAURO: And, Wanda, with regard to this particular exposure matrix, now, we have reviewed lots of AWE exposure matrices, including TBD 6000. Where an effort was made to parse job categories, this particular one, that wasn't done.

So one could argue, well, is that really fair? In other words, this one you always apply the 95th percent everywhere. So, really, you don't have provisions for that

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1	parsing while you do in other places.
2	MEMBER MUNN: But the amount of
3	fairness was supposed to be the coup de grace
4	for all of this that we do isn't necessarily
5	so. The coup de grace out to be one of
6	reason, not of fairness. And to remove the
7	ability of our dose reconstructors to make
8	some educated judgments about the cases that
9	come before them would not seem wise to me.
10	MR. HINNEFELD: Well, I mean, we
11	can check. I don't know that there is a
12	finding. Well, these are all relative. You
13	know, all of these findings, this is kind of
14	a site profile findings. I don't know if it's
15	duplicated back in the back but clearly a site
16	profile finding because
17	CHAIRMAN GRIFFON: Six would be,
18	really, yes.
19	MR. HINNEFELD: The six would be.
20	You don't have one model.
21	CHAIRMAN GRIFFON: Right, yes,
22	like you do in several other sets.

1	MR. HINNEFELD: Yes, yes.
2	DR. MAURO: Interestingly enough,
3	you will see we don't go in our review of the
4	exposure matrix, we are not critical.
5	MR. HINNEFELD: Yes. It's not
6	listed.
7	DR. MAURO: Because we felt it
8	very favorable that you all would hope to go
9	into the 95th percentile except for this
10	correlation business.
11	MR. HINNEFELD: Yes.
12	DR. MAURO: That philosophy of the
13	95th percentile applies to everyone. You
14	know, as a general rule of thumb, that is
15	pretty good. But then there along I come.
16	And I said, well, wait a minute.
17	CHAIRMAN GRIFFON: Yes. I guess
18	as I read your response, you know, it strikes
19	me that that does certainly give rationale for
20	assigning the full distribution. You know
21	what I mean?

DR. MAURO: Yes.

1	CHAIRMAN GRIFFON: So someone who
2	was likely not in the operational area a lot.
3	But you weren't sure. So you are saying okay.
4	But there was something in the 95th. It seems
5	to me like a little bit of overkill.
6	MR. HINNEFELD: Okay. So, then
7	CHAIRMAN GRIFFON: You know, what
8	is the action?
9	MR. HINNEFELD: What action do you
10	have here? I mean, we wouldn't do anything
11	for this claim. I don't know what our status
12	is on Bridgeport.
13	We are always, you know, liable to
14	get more from any given site. I don't know if
15	you've got any open now or not. It was why we
16	get more, I guess. I don't know that I
17	necessarily want to commit to a lot here. I
18	mean, there are
19	CHAIRMAN GRIFFON: Right.
20	MR. HINNEFELD: I was not the
21	person who developed Bridgeport or actually
22	worked on Bridgeport Brass. I don't know what

1 kind of evidence people are feeling, if we have about -- what happened there, I believe 2 this is an extreme process. 3 4 DR. MAURO: Yes. CHAIRMAN GRIFFON: Well, I mean, 5 maybe I could offer that you can keep it in 6 7 the mini site profile review portion of this and say that NIOSH will further consider the 8 applicability of a tiered model, --9 10 MR. HINNEFELD: Okay. CHAIRMAN GRIFFON: -- rather than 11 a one size fits all model, 95 percentile, just 12 to be clear. Does that make sense? 13 14 MR. HINNEFELD: Yes. 15 CHAIRMAN GRIFFON: And I say 16 consider because you may look back and say, you know, it's a good idea in principle, but 17 we looked further at this. And we're more 18 19 convinced than ever that the job title 20 information, it's too vague, and we don't want to. You know, so that may be your final 21

I'm just giving a maybe look at

answer, Stu.

it further.

MEMBER CLAWSON: Well, I guess that is part of my question because I see at other sites we have done both guiding job titles.

DR. MAURO: And they parse it pretty finally. For example, TBD 6000 parses it really fine, you know. And I could see why you wouldn't want to parse at that finding, especially if the people could wear several different hats.

In this case, though, if there was

ever a place where you would want to make a

parsing -- now, certainly if we could find out

a little bit more about what does it mean to

be a [Identifying Information Redacted] at this

facility --

MEMBER CLAWSON: I don't think you really could call out a [Identifying Information Redacted] because we have our [Identifying Information Redacted] come right into our areas in accidents.

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1	DR. MAURO: They're there eight
2	hours a day working next to the rods.
3	MEMBER CLAWSON: No. Actually,
4	when we had an accident was somebody involved
5	those. But they're actually coming right into
6	it. We have had some
7	DR. MAURO: Get high doses?
8	MEMBER CLAWSON: Well,
9	contaminated and so forth. It's kind of an
10	interesting aspect. I guess my picture that
11	I was seeing was one side was dividing them
12	all down real fine, holding that, and then
13	this not maybe we didn't have enough
14	information or something like that. I don't
15	know. I'm just
16	CHAIRMAN GRIFFON: Okay. I'll
17	just leave the action like that, then. Let's
18	want to go ahead onto the next finding,
19	John?
20	DR. MAURO: What number are we up
21	to?
22	CHAIRMAN GRIFFON: That would be

1	149.4, because we just did 3.
2	DR. MAURO: Yes. Four is
3	non-penetrating, same issue, but now we're
4	talking non-penetrating. So it's the same
5	issue. In other words, in this particular
6	person, non-penetrating is
7	CHAIRMAN GRIFFON: Okay. So they
8	overlap. Yes, I got you.
9	DR. MAURO: Yes. And it's the
10	same concept. You did exactly the same thing,
11	but non-penetrating.
12	MR. HINNEFELD: Your summary of
13	your finding doesn't read that way.
14	DR. MAURO: Yes. The summary dose
15	non-penetrating
16	MR. HINNEFELD: The summary of the
17	finding is
18	DR. MAURO: I'm sorry. I'm sorry.
19	I stand corrected. No. This finding I
20	thought I was saying that, use the 95th
21	percentile here. No, no, no. This was one of
22	those places where we asked the question. And

1	it doesn't really apply to this person,
2	because they were compensated, but I do not
3	believe there's any provision in the exposure
4	matrix for direct deposition of uranium
5	particles on skin. This goes back to the
6	issue
7	MR. HINNEFELD: That's the issue
8	we had a while with the Paducah case.
9	DR. MAURO: Exactly, exactly.
10	MR. HINNEFELD: Okay.
11	DR. MAURO: Now, it doesn't affect
12	this case, because it was compensated. This
13	is a cancer of the breast. So the positive
14	activity would have play. And as it stands
15	now, this goes to that generic issue when you
16	said that you think might be worried with the
17	generic analysis.
18	How do you deal with the person
19	with skin cancer, or I would say breast
20	cancer, perhaps, perhaps not testicular cancer
21	because the person is wearing clothes. But I

am more concerned about exposed skin, where

1	there could be a particle deposited.
2	CHAIRMAN GRIFFON: So this is
3	deriving shallow dose from
4	DR. MAURO: Shallow dose from
5	deposited material on the skin surface.
6	MR. HINNEFELD: So it's
7	essentially the same issue we had earlier,
8	because I mean, we could say that either it
9	doesn't matter in this case because this was
10	a compensable case anyway, or if we already
11	know it's on the generic list, or you refer to
12	
13	CHAIRMAN GRIFFON: I'm going to
14	put it both ways, because it's kind of a
15	matrix finding this way that you're going to
16	develop this over-arching, but it doesn't
17	affect this case.
18	MR. HINNEFELD: Okay.
19	DR. MAURO: I'm looking at the
20	next ones. And you know, they all say the
21	same thing. And I'd have to go back to the
22	report and say, what's the difference between

1	the 149.5 and 149.6? They're both talking
2	about the use of default values in the site
3	profile will likely result in a substantial
4	overestimate to this worker. I have to go
5	back. Let me pull the report and see what
6	that's about, see if it's here.
7	CHAIRMAN GRIFFON: You're on
8	149.5, and now you're looking
9	DR. MAURO: Yes. I'm looking at
LO	149.5, and just to see why
L1	MR. FARVER: 149.5 is external,
L2	and 149.6 just deals with the internal.
L3	DR. MAURO: Oh, okay. So we moved
L4	it to internal. Okay. There you go. Okay.
L5	149.5.
L6	CHAIRMAN GRIFFON: Okay. So the
L7	whole issue on 149.5 and .6 is the
L8	overestimate
L9	DR. MAURO: As applied to this
20	CHAIRMAN GRIFFON: It is too much
21	of an overestimate, right?
22	DR. MAURO: As applied to this

1	CHAIRMAN GRIFFON: We have the
2	same follow-up, right?
3	DR. MAURO: Yes, yes.
4	CHAIRMAN GRIFFON: Yes. Right.
5	Let me just copy and paste why I'm doing this,
6	and then get it right.
7	(Pause.)
8	CHAIRMAN GRIFFON: Okay. So we're
9	on the 150 now?
10	DR. MAURO: Yes.
11	CHAIRMAN GRIFFON: Okay. 150.1.
12	MR. HINNEFELD: Did we want to go
13	to the other Bridgeport Brass findings?
14	CHAIRMAN GRIFFON: Is there
15	different stuff at the bottom?
16	MR. HINNEFELD: I think there
17	might be more than just the couple we talked
18	about.
19	CHAIRMAN GRIFFON: Can we stay on
20	Bridgeport, John? Is that all right?
21	DR. MAURO: Sure. Where do we go
22	down to on that?

1	MR. HINNEFELD: I think it's at
2	the very bottom of the matrix.
3	DR. MAURO: There it goes. Okay.
4	MR. HINNEFELD: And it's
5	Bridgeport's attachment 1.
6	DR. MAURO: Okay. What's the
7	number? Does it have a number?
8	CHAIRMAN GRIFFON: It's attachment
9	1, right?
10	DR. MAURO: I just have an
11	excerpt. Let me go sit over there with Doug
12	maybe.
13	CHAIRMAN GRIFFON: Yes. So it's
14	on page 55 on mine, maybe 54 on yours.
15	Fifty-five? Yes.
16	MR. HINNEFELD: Page 55.
17	CHAIRMAN GRIFFON: And this one,
18	yes, would benefit from additional analysis to
19	demonstrate do you have that one?
20	DR. MAURO: I have to say, I'd have
21	to read my to be able to
22	CHAIRMAN GRIFFON: All right.

1	Let's hold off on this.
2	DR. MAURO: Can we hold off on it?
3	CHAIRMAN GRIFFON: We won't even
4	get this far in the matrix by the end of the
5	meeting. So we'll come back to those next
6	meeting.
7	DR. MAURO: I am not prepared to
8	talk about the mini site profiles.
9	CHAIRMAN GRIFFON: One fifty.
10	We're on 150.
11	DR. MAURO: Okay. That's
12	Anaconda.
13	MS. BEHLING: Simonds Saw.
14	DR. MAURO: Okay. That's right.
15	Simonds Saw.
16	CHAIRMAN GRIFFON: We miss you at
17	these meetings, Kathy.
18	DR. MAURO: Kathy?
19	MS. BEHLING: Sorry I couldn't be
20	there.
21	CHAIRMAN GRIFFON: I'm sure you
22	are.

1	(Laughter.)
2	CHAIRMAN GRIFFON: We don't
3	believe that.
4	DR. MAURO: Okay. Kathy, could
5	you help me out here?
6	MS. BEHLING: Page 3.
7	DR. MAURO: Yes. It's Simonds
8	Saw. I don't have it in front of me here.
9	CHAIRMAN GRIFFON: Page 4, yes,
10	finding 150.1 on the matrix.
11	MS. BEHLING: Okay. 150.1, method
12	for deriving internal doses not
13	claimant-favorable. Let's see.
14	DR. MAURO: Is this residual
15	period? This is residual. Is that right?
16	MS. BEHLING: Let me look. Yes,
17	this is the residual period. The method used
18	to reconstruct the doses to the organ of
19	concern due to the inhalation of re-suspended
20	residual activity appears to underestimate the
21	dose from this pathway by one order of
	1

magnitude.

1	DR. MAURO: Yes. Okay. I know
2	where we are.
3	MS. BEHLING: Okay?
4	DR. MAURO: We've been through
5	this before. This is the same old, same old.
6	You've seen it when you derive the activity on
7	surfaces. I believe, on Simonds Saw, there is
8	information on the amount of residual
9	activity.
10	On Simonds Saw, you have
11	information on the amount of residual activity
12	on surfaces based on those film badges that
13	were held, right? So from there, you could
14	back out and say, okay, how much contamination
15	would you have on surfaces that would give you
16	those readings on the film badges?
17	And I think that if you try to
18	back it out, the amount of activity per unit
19	area would be much higher than the default
20	value you folks have adopted in your Simonds
21	Saw dose reconstruction.

MR. HINNEFELD: Okay. Well our

1	response, for what it's worth, is that the
2	re-suspension, which would be the function of
3	the average, you know, not the highest spot,
4	because people would be re-suspending the
5	things from throughout the day. And so my
6	understanding, from reading our response, is
7	that the re-suspension values were generated
8	from the average of those readings, rather
9	than from the highest reading.
10	DR. MAURO: I would agree with
11	that.
12	MR. HINNEFELD: That's my account.
13	DR. MAURO: Okay.
14	MR. HINNEFELD: At least that's the
15	way we read this.
16	DR. MAURO: Okay.
17	MR. HINNEFELD: The way I read our
18	finding, that seems to be what we interpreted
19	the difference to be.
20	DR. MAURO: Okay. Yes. I would
21	agree with you completely that, if you have an
22	estimation of the activity that's on surfaces,

and its variable, in some places it's high, in some places it's low, and you're trying to determine what the low, whether it's external exposure or its re-suspension, in both cases I would say, yes, you're working from the average as being the right place to work.

But I think my concern is that I don't think there's parity between -- you know, I think you predicted the level that's on surfaces using the standard deposition velocity approach. You know, that, about 0.00075 meters per second times the airborne concentration, and you allow the radioactivity to fall for some time period. In this case, it might have been a year, which is pretty conservative. So it's all coming back to me.

So I just have a problem with that, as I've said on many occasions. The whole approach to saying, if I know what the airborne activity is in milligrams per cubic meter or whatever units, then I apply this deposition velocity of 0.00075 meters per

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second, which is a deposition velocity for five micron particles, and then so you get this rate that's falling, and that's, you know, I think mechanistically it doesn't work that way, especially in Simonds Saw, where we're talking rolling operations with large flakes. And we talked about this yesterday.

And so I would say,
mechanistically, that is not a good way to try
to get a handle on what might be on surfaces
during operations. Okay? Quite frankly, I
would have sooner gone with the film badge
that was hanging and see what reading that is
and what activity that would correspond to our
services that would you that radiation field.
I mean, it was five feet above the surface.

I would compare the two and say, okay. If the two sort of came in close to each other, then we are modeling approach.

And in reading, I would say I think you probably are pretty robust. But if I came up with, let's say, a ten times higher surface

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1	contamination from the film badges, I would
2	have been claimant-favorable, and went with
3	that.
4	And I think that that's you
5	know, if I had the report in front of me, I
6	think that I found that I came up with much
7	higher numbers if I were to use the film badge
8	data to get my surface activity.
9	MR. HINNEFELD: Well, it sounds
10	like, at the very least, we need a better
11	description of well, at least I need to
12	understand better where our number came from.
13	I think I understand where your number came
14	from, or I can probably read that in your
15	report.
16	DR. MAURO: Yes.
17	MR. HINNEFELD: And so we need
18	maybe some additional comparison there, and
19	maybe reconsideration of whether what you
20	adopted was right.
21	And now there's a second aspect of
22	this finding, I think, which is the

1	re-suspension.
2	DR. MAURO: Well, that's the other
3	half.
4	MR. HINNEFELD: And that's, I
5	believe, on the global
6	DR. MAURO: Right. That's a
7	global issue and we have a running discussion
8	where we think it should be closer to $10^{-5}$ .
9	MR. HINNEFELD: Yes.
LO	DR. MAURO: And I think that, by
L1	the way, we could benefit from yesterday's
L2	conversation in that we we made a
L3	distinction between the airborne activity due
L4	to re-suspension that might be associated with
L5	the operations time period, where the stuff is
L6	very loose, people are walking around and
L7	kicking it around, and clearly, under those
L8	circumstances, 10 <sup>-6</sup> is not a good number.
L9	But the argument was made by Jim
20	yesterday, and rightly so, but wait a minute,
21	we never use re-suspension. You know, during

operations, we use our best estimate of what

the airborne level is from measurements of air sampling or bioassay data.

We only use re-suspension factors during the residual period. And during the residual period, one could argue that the radioactivity that's been deposited is less re-suspendable. It's aged, and we would agree. When you're dealing with -- even though it may not have been cleaned up, but when it's aged, and certainly if there's no anthropomorphic activity, people, trucks, people, forklifts, whatever, your potential to create re-suspended material is diminished.

So we left it yesterday as agreeing that, for the post-operation period, but prior to decon, when you have residue, you know, what do you use for your re-suspension factor?

I would say it could certainly be someplace between 10<sup>-6</sup> and 5 times 10<sup>-5</sup>. See, 5 times 10<sup>-5</sup> is the value that's sort of been widely accepted as a good re-suspension factor

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for a place where there's loose contamination, it's fresh, and there's people walking around reading higher than that.

And 10<sup>-6</sup>, by the way, is a good re-suspension factor for a place that's been cleaned up. In other words, in fact, the NRC recommends, when you are going through the license termination process or licensed facility, and you finish cleaning everything up, and you do your survey, and you look for residual radioactivity, your goal is to make sure that, if someone were to occupy that building at some time in the future, that person would not get more than 25 millirem per year. That's their cleaning criteria.

When making that determination, they recommend using a re-suspension factor once you, you know, you do your survey of 10<sup>-6</sup>. So they are the first to say that 10<sup>-6</sup> probably is pretty good when you've cleaned the place up.

And there really isn't very much

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removable contamination left. You certainly don't have that in the situation you're talking about now.

CHAIRMAN GRIFFON: Yes. I mean I didn't really -- we did have this discussion yesterday a little bit, but I mean, there's a couple things I had, while I was sitting on the phone thinking about that was, you know, this aged idea. But also the -- I think we have to be careful when we say that a facility's post-operational time, because these places -- we're talking about post-AWE operation.

And a lot of them continued operation. They just weren't doing covered operations, you know? So you still have a lot of activity and stuff, you know?

And then the other, I mean, there are so many things in what you just said, but the other side of it is, you know, back to my old harping on these surveys at the end, these decommissioning.

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Decommissioning in the '70s was a lot different than decommissioning in the '90s. And you know, I've cleaned up places that the NRC cleared in the '70s.

They were cleared for free release. And I was there for six years, which I didn't mind. You know, getting paid for it and doing a lot of work. But they had a lot of contamination left. I'll tell you that.

And you know, the questions raised by the workers there at the time were, you know, what do you mean that roof is totally contaminated? We've put new rock on it like every other year. Did we get exposed up there?

And that's all in your, quoteunquote, residual period, where if they use the NRC report from 1978, I think in this facility I'm thinking of, it basically said, it's good to go, you know?

So I guess those two factors, but

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the one that I guess we can best get our hands around is, when we say, you know, post-operational, it doesn't mean like it was moth-balled necessarily. It's not just sitting there.

DR. MAURO: Yes. I mean, if you think of it, if it's post-operative, the license terminated, you've got some residual radioactivity. And then all of a sudden, you know, you still have people working there, but not -- in other words, it's an AWE facility, but you stop rolling uranium. You're back to rolling steel.

We've been through this before,
you know, and I think there were methods that
were developed, for example, in Bethlehem
Steel, that seemed to work very well, because
as time went on, what happened was you had
the starting point. You had some residue of
uranium. But as time went on, you started to
add more and more metal residue, which
diluted it.

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1	So as time went on, you have a
2	slope. So you know your starting level, and
3	you know that, as time goes on, that's going
4	to be reduced.
5	Now here I don't know, for the
6	post-operation of Bridgeport Brass, what
7	happened after we you know, whether or not
8	I don't know.
9	MR. HINNEFELD: Well, they sent
10	the press to Ashtabula, but I don't so the
11	extrusion press they had been using for the
12	work was not enabling it. But I don't know
13	what went on in the evening, I just assume
14	DR. MAURO: Or for Simonds Saw,
15	too. I mean, Simonds Saw so the method
16	that was used in Bethlehem Steel seems to
17	apply here. Here I think you came up with
18	some residual activity, and then applied the
19	$10^{-6}$ re-suspension data. Well, in both cases,
20	I guess
21	MR. HINNEFELD: There's a couple
22	of things here. There's resolution of this

global issue of re-suspension, which would be a precursor to solving the specific application at Simonds Steel. And maybe it will provide the specific application.

Here is the situation, this is what you do. I mean, that sounds to me like this is certainly dependent upon the universal or the over-arching issue under suspension.

And the solution may be at the range, you know, based on the conditions,

range, you know, based on the conditions, this is what you do at that point would be the appropriate application to this, which would be another -- you know, that would be subject to individual, site-specific considerations. Until, you know, until that is kind of put to bed, I think, or kind of this won't go anywhere until we have kind of a universal or a large --

DR. MAURO: I think OTIB-0070 is the home for --

MR. HINNEFELD: Yes. And I think

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1	that's Jim's point, too, is that's where that
2	discussion should occur.
3	CHAIRMAN GRIFFON: But the other
4	side of it, I have as an action for you guys
5	to further consider the initial finding for
6	
7	MR. HINNEFELD: Yes. I read that,
8	right.
9	CHAIRMAN GRIFFON: Okay.
10	MR. HINNEFELD: Well, the first
11	thing I've got to do is figure out the
12	sources of both numbers, because I just don't
13	know.
14	CHAIRMAN GRIFFON: Now, I haven't
15	put that in the procedures workgroup in the
16	past. NIOSH is developing a response to the
17	re-suspension issue.
18	Is that an official decision that
19	we've made, deciding that it's going to go in
20	TIB-70 discussions, and it's going to be
21	rolled into that or I haven't put that in
	I and the second

the past, because we've had this ongoing, as

1	we all know.
2	MR. HINNEFELD: Well yesterday's
3	meeting was BB, appendix BB, and TIB 70. Is
4	that right?
5	DR. MAURO: No. Any issues
6	related to residual period, where you're
7	dealing with external exposure to surfaces,
8	contaminated and re-suspended inhalation of
9	material is a OTIB-0070 is here now. And
10	it addresses that, and it's different than
11	what's been done historically at other sites,
12	and other sites affected.
13	But now you've got OTIB-0070. And
14	we are engaged in a discussion on issues
15	related to OTIB-0070.
16	In my mind, once all the OTIB-0070
17	issues are resolved, I'm going to say,
18	everybody agrees, this is the right way to
19	go. I think that's the method that should be
20	applied universally to all the
21	MR. HINNEFELD: Yes. That would
	1

be my way of thinking, and so this is caught

1	up in that, or
2	DR. MAURO: It's caught up in
3	that.
4	MR. HINNEFELD: the issue
5	solution.
6	CHAIRMAN GRIFFON: So right now,
7	since, without going back and changing all
8	the last other matrices from white paper to
9	TIB 70, I'm going to leave it as white paper,
LO	but if you guys come back saying, this has
L1	been addressed in TIB 70, then all those
L2	follow-ups will go away on this, on our
L3	matrices. All right? Just maybe verify that
L4	with Jim, or whoever.
L5	DR. MAURO: Now, that's 150.1 you
L6	just talked about?
L7	CHAIRMAN GRIFFON: Yes.
L8	DR. MAURO: Do you want to move on
L9	to 150.2?
20	CHAIRMAN GRIFFON: Yes.
21	DR. MAURO: Okay. 150.2 is
22	ingestion, and I'm happy to say that the

ingestion problem is solved. I don't know who was here yesterday, but for the longest time, there has been a fundamental disagreement between SC&A and NIOSH on how do you model inadvertent ingestion.

SC&A has been operating, you know, based on reviewing OTIB-009 and digging into its literature as best we can, which is the generic protocol for ingestion, we thought that fundamental to that method was the assumption that the default ingestion rate for hand-to-mouth activity, for sandwiches that might get contaminated, was 0.5 milligrams per day, as being the quantity that's ingested. And we took exception to that for a number of reasons.

One, the EPA for inadvertent ingestion recommends 50 milligrams per day for an adult. NCRP 123 recommends 100 milligrams per day. And Jim has pointed out on a number of occasions that both of those -- when you go into the literature that's

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behind that, we find that is very poor. And I would agree with him. In other words, the way in which they came to the 15 to 100.

Even though it's become universal, because everywhere you look, that's what people use as a default value, Jim has elected not to adopt that, and to go with 0.5 milligrams per days. No, no, I'm sorry. Jim has elected not to do that and to do something else. I did it again, right? I'm glad you caught me -- and is doing something else.

I thought that something else was 0.5 milligrams per day because we've tracked down the literature, and we believe that he was using RESRAD assumptions, which is 0.5 milligrams per day.

It turns out Jim corrected me yesterday. He said, no, no, no, no, no, no.

We're using -- and I should have realized this -- we're using 0.2 times the concentration in the air as being the intake

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per day.

So for example, let's say you have five milligrams. Let's talk in milligrams.

Let's say you have five milligrams per cubic meter, okay, in the air, which is, by the way, a pretty high number. It's the TLD for dust. But it's not that high for the early days of the AWE. In fact, I think we went up to the hundreds of milligrams per cubic meter at Bethlehem Steel.

Let's go with five. You multiply that by 0.2, you get one milligram per day as your ingestion rate. So in other words, your method for deriving ingestion is to simply take whatever the concentration is in the air -- I'm using milligrams, but it could just as well be Becquerels -- you multiply by 0.2, and it gives you a number. 0.2 times 5 is 1. You would get one milligram per day.

Once you get into the milligram per day numbers, that is a lot more reasonable, one to ten, because you could

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1	easily, if you go to any of these sites and
2	look at the airborne dust loadings that
3	correspond to, I guess, to 100 MAC, for
4	example, or 10 MAC, you're now in the range
5	of multiple milligrams per day. And that's
6	the kind of number for ingestion that I was
7	CHAIRMAN GRIFFON: I thought Jim
8	was saying yesterday that it was based on the
9	surface contamination data that they had.
10	DR. MAURO: Yes, but in the end,
11	there's a whole story about this
12	hand-to-mouth, and they're licking their
13	hand. But what happens is what they do is,
14	it's the 0.2 rule. You know, if it turns out
15	
16	CHAIRMAN GRIFFON: Where does this
17	0.2 value come from?
18	DR. MAURO: Well, that's where
19	they got it from. You know
20	CHAIRMAN GRIFFON: I missed this
21	part of the call, yes.
22	DR. MAURO: It's pretty torturous.

In other words, it took us a while, and we got it wrong. Trying to figure out, how did you get to the 0.2 number. In other words, you take the 0.2, and you multiply by the dust loading. And we try to track that down.

and RESRAD computer code with the 0.5
milligrams per day. So I seized upon that.

I have a lot of trouble. And then, in fact,
we had a part where we passed around a vial
containing 0.5 milligrams of sand, and you
hardly could see it. I mean, it's almost
invisible, and it's almost inconceivable that
it could be that small.

Jim corrected it. He says, no.

We're not making that assumption. We're

saying -- and you know, if it's a pretty

dusty environment, you could get many

milligrams per day as being the inadvertent

ingestion rate.

You know, this is one of those areas where 0.5 was just too low, in my mind.

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Fifty was the number that I know that has been the status quo for EPA.

So the real number in my mind is some place certainly well above 0.5, because 0.5 is intuitively just too small when you look at how much it is. And 50 might be too high, because the literature upon which it is based is flawed.

Well Jim ended up coming up with numbers that are on the order of maybe a few to maybe ten milligrams per day, depending on the dust load.

And on that basis, and my sense is that this issue is closed. So the method you use, have adopted for your default approach across the board, because you're using it universally, is you come up with an airborne dust loading.

Now given we agree that the airborne dust loading is -- yes, that's a good number. Using the 0.2 approach seems to be --

1	CHAIRMAN GRIFFON: I still don't
2	understand where the 0.2 is. It's just a
3	number that works, or
4	MR. SIEBERT: There's various
5	conversion steps along the way.
6	CHAIRMAN GRIFFON: It ends up this
7	
8	DR. MAURO: It ends up there.
9	CHAIRMAN GRIFFON: Is it
10	documented somewhere?
11	DR. MAURO: It's in OTIB-009.
12	CHAIRMAN GRIFFON: It is in OTIB-
13	009, somewhere in OTIB-009?
14	DR. MAURO: But you have to go
15	through the literature. You have to track it
16	down.
17	CHAIRMAN GRIFFON: Okay.
18	DR. MAURO: And we did that. So
19	anyway, what I can say is, you know, based on
20	the conversation we had yesterday, it seems
21	that, you know, Jim made a very convincing
22	argument that the 0.2 rule of thumb seems to

1	work well.
2	CHAIRMAN GRIFFON: And what do you
3	do if you don't have air-monitoring data?
4	Are you just using
5	DR. MAURO: You can't do it.
6	CHAIRMAN GRIFFON: Okay. So you
7	have to have air monitoring.
8	MR. SIEBERT: You have to have
9	some estimate of the air field, or if you
10	know what the activity now, if you know
11	what the activity is on surfaces, you don't
12	have
13	CHAIRMAN GRIFFON: That's a
14	MR. SIEBERT: Then you've got the
15	re-suspension problem, which is a different
16	issue.
17	CHAIRMAN GRIFFON: Yes, yes.
18	MR. SIEBERT: But you can get a
19	value in the air, and then the 0.2 will work.
20	DR. MAURO: And then apply it to
21	that.
22	CHAIRMAN GRIFFON: It will work as

1	long as you buy how you do the re-suspension.
2	DR. MAURO: Bingo. You've got it.
3	So I mean, it's not all but I think there
4	is a breakthrough here. At least I would say
5	we are more than halfway home on the
6	ingestion in terms of, if you've got good,
7	claimant favorable dust loading, airborne
8	dust loading, to me, the 0.2 rule seems to
9	work.
10	Now, if you're coming up with your
11	airborne dust loading using a re-suspension
12	factor approach, 10 <sup>-6</sup> , then we've got a
13	problem. It may be low by a factor of ten or
14	more for the reasons we have mentioned on
15	many occasions. And that's a generic issue
16	that I think everyone has agreed
17	CHAIRMAN GRIFFON: So this
18	ingestion issue is no longer going to be a
19	white paper? You're satisfied with TIB 9, is
20	kind of what you're saying?
21	DR. MAURO: Yes. I'm satisfied

with the 0.2 rule.

1	CHAIRMAN GRIFFON: The explanation
2	of TIB 9?
3	DR. MAURO: Now that I understand
4	it, yes.
5	CHAIRMAN GRIFFON: But we still
6	have it as waiting for a NIOSH white paper.
7	Is NIOSH going to provide anything on that?
8	or are we just going to let that go? It
9	comes up in every matrix from like the first
10	one, I think.
11	MR. HINNEFELD: I guess.
12	CHAIRMAN GRIFFON: I think it
13	might be worthwhile to produce something that
14	says explains better what's in TIB 9.
15	MR. HINNEFELD: Better than TIB 9?
16	CHAIRMAN GRIFFON: Well, it just
17	explains, you know, maybe lays out a sample
18	calculation or something that people can
19	follow through, because obviously if they
20	have trouble following it you know, it's
21	been on the public record for a while. I'm

just saying, if we just dismiss it now, it

1	would look funny. Is that
2	MR. HINNEFELD: I'll find out.
3	CHAIRMAN GRIFFON: Yes,
4	understanding that SC&A seems to be fine with
5	the bottom line at this point. So it's
6	really just an explanation of what you're
7	already doing, I guess, you know.
8	MEMBER MUNN: So Mark, you want
9	this to go where?
10	CHAIRMAN GRIFFON: I'm saying that
11	NIOSH is going to just to satisfy past
12	actions, NIOSH is going to develop a we'll
13	call it a white paper, but it's really just
14	to explain what's in TIB 9 maybe just a
15	little more with a sample calculation or
16	something so that it will explain what John's
17	just sort of outlined here.
18	And I'm going to indicate that,
19	you know, SC&A appears to be satisfied with
20	this explanation, but we want it documented.
21	That's all we're waiting on.

MEMBER MUNN: Yes, yes. I

1	understand.
2	CHAIRMAN GRIFFON: Yes, yes.
3	MEMBER MUNN: I was just asking
4	where it's going to land, what it's going to
5	be attached to so that, the next time,
6	re-suspension factors, and how many times
7	people
8	CHAIRMAN GRIFFON: Right, right,
9	right.
10	MEMBER MUNN: that comes up,
11	which it will do within the next 24 hours for
12	sure.
13	CHAIRMAN GRIFFON: Yes. I've got
14	you. I've got you.
15	MEMBER MUNN: We know where that
16	white paper is going to land, and we can all
17	say it in chorus.
18	CHAIRMAN GRIFFON: Yes, I follow
19	you.
20	DR. MAURO: It's important to make
21	a distinction between the re-suspension
22	factors

1	CHAIRMAN GRIFFON: Yes. This is
2	ingestion.
3	DR. MAURO: and the ingestion.
4	CHAIRMAN GRIFFON: This is
5	ingestion, yes.
6	MEMBER MUNN: Right.
7	DR. MAURO: I think ingestion,
8	we're almost home free. I think maybe some
9	documentation of, no, it's not 0.5 milligrams
10	per day.
11	CHAIRMAN GRIFFON: Let me ask, on
12	the procedures subcommittee, have we reviewed
13	TIB 9?
14	DR. MAURO: We did.
15	CHAIRMAN GRIFFON: And was it
16	pending this?
17	DR. MAURO: Yes. In TIB 9, we
18	have issues related to re-suspension factor
19	and inadvertent ingestion. And I think we're
20	really making some nice progress on the
21	inadvertent ingestion.
22	CHAIRMAN GRIFFON: So I'm going to

1	say this is going to end up in your
2	subcommittee, Wanda, to answer your question.
3	Yes.
4	MEMBER MUNN: Yes. I gathered
5	this is
6	CHAIRMAN GRIFFON: Right.
7	MEMBER MUNN: which is one of
8	the reasons why I'm trying to be specific
9	about words. I already know it's going to be
10	in my lap, but where in my lap.
11	DR. MAURO: And I think it's going
12	to be nicely trapped.
13	CHAIRMAN GRIFFON: Related to TIB
14	9. It will be a white paper. Yes.
15	MEMBER MUNN: All right. We
16	undoubtedly have some action item.
17	CHAIRMAN GRIFFON: Yes.
18	MEMBER MUNN: But given the
19	current state of my electronics, I'm not even
20	going to try to look at it.
21	CHAIRMAN GRIFFON: Okay. Go
22	ahead, John. I'm sorry. I just wanted to

1	get that down.
2	DR. MAURO: We're up to well,
3	it looks like that was 151 and 152.
4	CHAIRMAN GRIFFON: Yes.
5	DR. MAURO: That's it. Now we're
6	up to 151. I'm not sure what 151 is. Do you
7	know what site that is?
8	MEMBER MUNN: We are on 152.1.
9	DR. MAURO: I see 151.1.
10	CHAIRMAN GRIFFON: No. We are on
11	151.1. We were just on 150.1 and 150.2.
12	DR. MAURO: 151 is Anaconda.
13	Okay. I've got it. Anaconda
14	MR. SIEBERT: You were just ahead
15	of us.
16	CHAIRMAN GRIFFON: Yes.
17	DR. MAURO: You know, somehow I
18	had Anaconda in my head. And I read Anaconda
19	during the lunch break, and I'm ready to talk
20	about it. This was a person that was denied
21	using OTIB-004, as opposed to the Anaconda
22	site profile, because I believe the Anaconda

1	I guess it's an appendix, perhaps to TBD
2	6000.
3	MR. HINNEFELD: That's probably
4	true.
5	DR. MAURO: So I think Anaconda is
6	an appendix of TBD 6000. It was not
7	available to the dose reconstructors at the
8	time.
9	MR. SIEBERT: It was done well
LO	before that, yes.
L1	DR. MAURO: So and this was a
L2	person where you placed an upper bound using
L3	OTIB-004, and denied, which is exactly what
L4	the purpose of OTIB-004 is, to place an upper
L5	bound in denial.
L6	When we reviewed this, I think
L7	that the external exposure and internal
L8	exposure, we agree and I wish I had it in
L9	front of me. In other words, you basically
20	followed OTIB-004, and we agreed that OTIB-
21	004 is certainly bounding for external

exposure, because you are assuming a person

1 is up close and personal, I think to the source, for a protracted period of time, and 2 it really places another bound on external 3 4 exposure. 5 And I believe on internal exposure you assume the person is continuously exposed 6 7 to 100 MAC of airborne dust loading --CHAIRMAN GRIFFON: Right. 8 9 DR. MAURO: -- extremely 10 conservative. So from that point of view, you certainly place an upper bound. For the 11 residual period, we're right back where we 12 13 started again. It's not important, though. In other words, though we comment, 14 15 and that's the two comments here, we have a 16 comment on exposure to surface contamination. 17 That's 51.1. And 51.2, we have a comment on ingestion. The ingestion problem has gone 18 19 away. 20 The external exposure to surface contamination, you know, in our mind, it's 21

That is, the way you come

22

still a problem.

1	to that number. But in this case, I'll say
2	it.
3	You know, you deny, but you know,
4	you can really increase that pathway, let's
5	say. It's not going to change anything. By
6	far, the exposure from operations drives this
7	thing.
8	CHAIRMAN GRIFFON: All right. So
9	we'll leave it as a finding. It won't affect
10	this case kind of thing.
11	DR. MAURO: Yes. 151.1 won't
12	affect the case
13	CHAIRMAN GRIFFON: Right.
14	DR. MAURO: but it's still an
15	issue that needs to be resolved.
16	MR. HINNEFELD: Now, 151.1 I
17	believe is the issue about how the
18	contamination, the starting contamination
19	DR. MAURO: Surface contamination.
20	MR. HINNEFELD: the residual
21	period, surface contamination, is generated
22	

1	DR. MAURO: Is generated.
2	MR. HINNEFELD: from the
3	deposition pattern. And that's on the books
4	somewhere, right? Is that on a generic or
5	over-arching, or is that in TIB 70, or
6	DR. MAURO: I think that's one of
7	the steps in TIB 70.
8	MR. HINNEFELD: Okay.
9	DR. MAURO: It starts with that.
10	That is, the thing with TIB 70 is, one of the
11	starting points, as you know, with the
12	activities on the surface, because you may
13	have mentioned it during operation, and now
14	we're into a post-operation period, and you
15	have to assign a slope to it, because it will
16	start to decline with time.
17	MR. HINNEFELD: Right.
18	CHAIRMAN GRIFFON: I'm not sure.
19	Does TIB 70 talk about the original
20	derivation of the
21	DR. MAURO: I think it gives you
22	different cases. If you know this.

1	CHAIRMAN GRIFFON: Yes.
2	DR. MAURO: But how you get to
3	that, I don't think TIB 70 tells you how you
4	can get to the
5	CHAIRMAN GRIFFON: Right. I think
6	
7	DR. MAURO: Yes. That is an
8	operational
9	CHAIRMAN GRIFFON: You've got six
LO	specific yes.
L1	MR. HINNEFELD: This has come up,
L2	this finding about
L3	CHAIRMAN GRIFFON: Yes. We just
L4	had it last case, yes.
L5	MR. HINNEFELD: I mean, that seems
L6	to me like that is one broad thing to be
L7	resolved. You know, if you do it once, you
L8	know. Yes.
L9	DR. MAURO: Well, I would say when
20	it comes to residual contamination of
21	surfaces at AWE facilities in the early
22	years, that's what I'm talking about

1	there has been a lot of work done between
2	Kingsley
3	MR. HINNEFELD: Oh, yes.
4	DR. MAURO: and also the Adley
5	paper. They have information on how much
6	and it's a lot of residual radioactivity.
7	And there is a lot of data on that.
8	If you were to say, "We are going
9	to use that generic upper bound," if you look
LO	at the Adley paper, it is by far the best
L1	one. This is a report that was put out, AEC
L2	1952. It has the citations.
L3	There is all this incredible
L4	amount of data on what it was like in a
L5	uranium-handling facility back in the late
L6	1940s, early 1950s. They did a tremendous
L7	amount of research characterizing the
L8	airborne activities, the deposition rates on
L9	the surfaces.
20	I think if you use that as a
21	generic starting point, okay. We are going

to assume that at the time of termination of

1	operations, this is the residual activity, an
2	upper bound estimate of what might have been
3	on surfaces at an AWE facility that we don't
4	have very much data for.
5	If you have data, great. Use it.
6	But if you don't have data, you would apply,
7	I would say, the Adley report starting point.
8	And then you trigger in okay.
9	OTIB 70. What happens in time? And how are
10	you going to get a slope on that? Right now
11	OTIB 70 says you pick some point out in the
12	future when you've got some measurements.
13	And if they're good measures, let's say, all
14	of a sudden it's 1978, and you've got some
15	FUSRAP. And you know there wasn't any D&D between the
16	time they shut down, let's say,
17	1960, and the FUSRAP characterization. Let's
18	say, 1978. You've got two points, you know.
19	You've got your slope, you know.
20	And that is one option you have
21	available to you under OTIB 70. OTIB 70

gives you a lot of options because sometimes

1	you don't have that point. And you have to
2	say, "Well, what slope do you use?"
3	One of our criticisms of OTIB 70
4	is you use, I think it was, one percent a
5	day, the rate at which it goes down. We've
6	got a real problem with that.
7	CHAIRMAN GRIFFON: I put that in
8	there, then, Stu, in terms of follow-up, you
9	know, that you might want to consider the
10	Kingsley and Adley. Is it A-d-l-e-y?
11	DR. MAURO: A-d-l-e-y.
12	CHAIRMAN GRIFFON: A-d-l-e-y.
13	DR. MAURO: It's AEC 1952
14	citation. I have all of that stuff. You
15	have it. Jim has it. Jim is very familiar
16	with the report.
17	CHAIRMAN GRIFFON: Okay.
18	DR. MAURO: And that is 151.1.
19	CHAIRMAN GRIFFON: I think that
20	is, yes. And this is a little different than
21	Simonds Saw because in that case, you know,
22	it's the same question, but you have film

1	data, too, you might want to consider. You
2	have site-specific data there.
3	DR. MAURO: We're on Anaconda now.
4	CHAIRMAN GRIFFON: I know. I
5	know. But I'm just saying it's not the exact
6	same action, necessarily.
7	DR. MAURO: Yes. Right.
8	CHAIRMAN GRIFFON: I mean, but
9	it's up to them to decide how they want to
LO	approach it.
L1	DR. MAURO: See, to me, whenever
L2	you have a question "Are data good enough?"
_3	you can always go to Adley. And Adley has
_4	got some incredible data, and they are high.
L5	The numbers are high.
.6	CHAIRMAN GRIFFON: All right.
.7	Going on to 152, John.
8 .	DR. MAURO: I think that leaves my
.9	territory.
20	CHAIRMAN GRIFFON: Okay. 152 is
21	moving on to one of your sites?
22	MR. FARVER: Savannah River site.

1	DR. MAURO: Okay. You got it.
2	MR. FARVER: You are off the hook,
3	John.
4	DR. MAURO: Thank you.
5	MR. FARVER: Here I am on the
6	hook.
7	CHAIRMAN GRIFFON: Good thing you
8	studied during lunch.
9	DR. MAURO: Yes. That's why I was
10	here.
11	MR. FARVER: 152.1, Savannah River
12	site case. The employee was an inline
13	mechanic, worked there from '52 through '83,
14	so for several years. And the concern was
15	the difference between some of the dose
16	records. And we did a couple of exhibits in
17	our report, some of the handwritten dose
18	records as they were kept compared to the
19	HPAREH is that how you say that, HPAREH?
20	report.
21	And although the differences are
22	not large, there are some differences. And

1	we are just reporting that there were
2	differences.
3	Now, in some cases you are looking
4	at maybe ten millirems. Some of it came from
5	I believe, the handwritten cards are
6	difficult to read. And they were added
7	incorrectly, which in some cases is not
8	always picked up in the HPAREH report.
9	So we just wanted to bring it to
10	your attention that there are differences.
11	That is the gist of first finding.
12	MEMBER MUNN: This doesn't
13	properly account for all photon doses.
14	MR. FARVER: That's correct. In
15	other words, there are handwritten dosimeter
16	cards. And then there is the
17	computer-generated report. And they do not
18	always have these same numbers.
19	MEMBER MUNN: And so the dose
20	reconstruction report doesn't have the same
21	numbers as the raw data? Is that what you're
22	saying?

1	MR. FARVER: Correct. That is
2	what I am saying. I believe that the policy
3	to follow the HPAREH report, that that is the
4	dose reconstructor policy.
5	MEMBER MUNN: Are you saying the
6	HPAREH report does not agree with the raw
7	data?
8	MR. FARVER: In some cases,
9	correct.
10	MEMBER MUNN: Right, right. Okay.
11	Now, that's all.
12	MR. HINNEFELD: Doug, I'm not sure
13	when there is a disagreement between HPAREH
14	and the cycle data, our thought, we thought
15	that we would pick higher. But it isn't in
16	this case, clearly.
17	MR. SIEBERT: That is what we're
18	saying, that we did use the HPAREH dose,
19	rather than cycle data. And it could be an
20	underestimate, which seems to indicate to me
21	we're saying that maybe we should use the

larger of the two.

1	MR. FARVER: Okay. I just wasn't
2	sure if you were just following the
3	MR. SIEBERT: Generically from my
4	mind, when they're not horrendously different
5	and we can't find the difference, we'll go
6	with the larger of the two. If there's a
7	huge difference, then we'll be doing a lot
8	more investigation as to why.
9	MEMBER MUNN: And how significant
LO	were the differences?
L1	MR. FARVER: We are looking at
L2	differences of ten millirem in one case.
L3	MR. SIEBERT: Ten to 20 millirem
L4	here and there.
L5	MR. FARVER: Twenty millirem here
L6	and there.
L7	MEMBER MUNN: A year or individual
L8	doses, what?
L9	MR. SIEBERT: The HPAREH is on a
20	yearly basis.
21	MR. FARVER: It would be a year.
22	MEMBER MUNN: Okay.

1	MR. FARVER: So it's not very
2	significant doses. It's just mainly to point
3	out that there were discrepancies between the
4	two records.
5	MEMBER MUNN: Right.
6	CHAIRMAN GRIFFON: Well, let me
7	clarify something, though. I thought from
8	your response oh, I see what you said.
9	You said that this could possibly result in
10	underestimate.
11	I guess the question is, is that
12	policy being used, the one you just
13	described, where you're saying that they'll
14	use the higher of the two? If that's the
15	case, then that's fine.
16	MR. SIEBERT: Sure. They can
17	verify it.
18	CHAIRMAN GRIFFON: Yes. And
19	either way, I think the bottom line for this
20	case is either way, it wouldn't have affected
21	the outcome of the case. But you do want to

know if they were following the procedure.

1	That's another question in the process.
2	MEMBER MUNN: It is of interest,
3	too, that only two years. I am not familiar
4	with the HPAREH report. Does that report
5	exist for all of the covered years or for all
6	of the years of operation or is it limited to
7	<del></del>
8	CHAIRMAN GRIFFON: It extends away
9	
LO	MR. HINNEFELD: Wanda, I don't
L1	know if it continues to present today, but it
L2	starts way back and goes pretty late.
L3	CHAIRMAN GRIFFON: Yes.
L4	MR. HINNEFELD: It goes into the
L5	'90s.
L6	CHAIRMAN GRIFFON: Into the '90s
L7	at least, yes, I think late '80s or '90s, I
L8	think.
L9	MEMBER MUNN: Okay. And so this
20	is a very comprehensive database that you're
21	using here?
22	MR. HINNEFELD: Yes.

1	MEMBER MUNN: That you are using
2	here?
3	MR. HINNEFELD: Yes.
4	MEMBER MUNN: And what I think I
5	have heard is that all was being pointed at
6	as if they are small discrepancies, not
7	particularly significant ones, between the
8	raw data and, at least for these two years,
9	the HPAREH report?
10	MR. FARVER: Correct.
11	MEMBER MUNN: Right? Yes.
12	MR. FARVER: In this case they are
13	small differences. I can't say that for
14	every case. I just know there are
15	differences.
16	MS. BEHLING: This is Kathy. I
17	have seen, at least from many of the cases
18	that I have reviewed on the Savannah River
19	site, generally there is a comparison because
20	it's put into their workbook.
21	And I think initially there is a

biweekly and monthly data. And then the dose reconstructor actually compares that and makes a comparison to the summary data.

And generally, in fact, I know that there are some dose reconstructors that even will highlight when they find a discrepancy if they will use the higher dose. And they will highlight that with a red, in red, so that it's clear this was dose that was added so that the individual monthly, weekly dose adds up to the summary dose if that summary dose was higher.

So I think in general, that the comment that you have made regarding using the higher dose is what I have seen in the past that they used higher.

MEMBER MUNN: Yes. Okay. What this boils down to essentially, for the uninitiated, appears to be possibly even human error in recording of data, which we all know occurs on a regular basis -- we can't overcome that -- but that it has been

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1	checked by the dose reconstructor and the
2	appropriate claimant-friendly dosage is used
3	as a matter of course. Am I interpreting
4	that correctly?
5	CHAIRMAN GRIFFON: Well, except
6	for the last part.
7	MR. HINNEFELD: The last part,
8	Wanda.
9	CHAIRMAN GRIFFON: That's what we
LO	are following up on.
L1	MR. HINNEFELD: That's what we
L2	have to follow up on, whether the policy is
L3	to use the higher value when you have these
L4	fairly small discrepancies.
L5	CHAIRMAN GRIFFON: And I think
L6	Kathy said in general she is seeing that, but
L7	for this case, we're not sure. So we're
L8	going to at least follow up.
L9	MEMBER MUNN: Okay.
20	CHAIRMAN GRIFFON: Let's go on to
21	the next one.
22	MR. FARVER: Next finding. Okay.

1	Improperly converted photon doses to organ
2	doses.
3	MR. SIEBERT: This is the usual
4	MR. FARVER: This is the usual one
5	that we have been putting in about when they
6	combine distributions of the dose conversion
7	factors, which has been corrected and the
8	current EDCW workbook. So this is finding 2
9	and finding 3 have been corrected.
LO	Now finding 4.
L1	CHAIRMAN GRIFFON: Hold on. I was
L2	catching up there, Doug. So 152.2, where are
L3	we at?
L4	MR. FARVER: 2.2 and .3 have
L5	already been corrected. It's a workbook type
L6	of situation in the Savannah River workbook.
L7	CHAIRMAN GRIFFON: Oh, yes.
L8	MR. HINNEFELD: There is no
L9	Savannah River workbook. The entire
20	MR. FARVER: And you will see this
21	come up, even in the next case.
22	CHAIRMAN GRIFFON: So this has

1	been revised in TIB 12, right? Is that
2	MR. HINNEFELD: I think that's
3	what it is. But yes, it's
4	MR. SIEBERT: No. It's in the new
5	tool itself. Rather than using the max and
6	min, it uses the actual
7	CHAIRMAN GRIFFON: Got you.
8	MR. HINNEFELD: The AP range.
9	MR. SIEBERT: Correct.
10	MR. HINNEFELD: Yes, that's what
11	it and this particular claim came back.
12	And so it got reworked with the correct
13	worksheet, you know, the correct workbook
14	after or it will be reworked. I don't
15	know right now.
16	MR. KATZ: Stu, you disappeared.
17	MR. HINNEFELD: Oh, I disappeared?
18	MR. KATZ: Yes.
19	MR. HINNEFELD: Sorry. This case
20	either has been or will be reworked with the
21	correct Savannah River workbook because it
22	came back to us for rework because one of the

1	PERs.
2	CHAIRMAN GRIFFON: PERs. Okay.
3	MR. SIEBERT: Yes. We presently
4	have it.
5	MR. HINNEFELD: Do we have it?
6	Okay.
7	CHAIRMAN GRIFFON: Okay. And
8	that's for .2 and .3?
9	MR. FARVER: Correct.
10	MR. HINNEFELD: Yes.
11	MS. BEHLING: Let me ask a
12	question there. When a change is made to a
13	workbook, as in this case, is there any kind
14	of a PER process that goes on? Because I
15	think in this particular case, like for
16	especially things like breast cancer, I think
17	it can have something of a significant impact
18	if I am remembering correctly.
19	I just wondered, like when you
20	make changes to your procedures, when you
21	make changes to a workbook, do you go back

and look at cases or not?

1 MR. HINNEFELD: Well, by and 2 large, a change to a workbook occurs because of a change to a procedure. Isn't that 3 4 right? MS. BEHLING: Not in this case. 5 MR. HINNEFELD: Well, they didn't 6 7 in this case, but, by and large, that is what happens. I mean, the workbooks are supposed 8 to faithfully reproduce the technical 9 10 guidance that's in the technical documents. And so to that extent, then other 11 than maybe you can make some selection items 12 13 more readily accessible and make the selections easier, I wouldn't think there 14 15 would be a lot of changes to the actual 16 calculation of a workbook unless there were a concomitant change or an associated change. 17 18 But it's a technical document that describes 19 this is the calculation method you use. So I wouldn't think it would occur 20 very often, but I know in this case it was 21

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It was strictly a workbook change.

1	MS. BEHLING: Okay.
2	MR. HINNEFELD: Scott is looking
3	for something here.
4	MR. SIEBERT: I know we did
5	actually review all of the cases that were
6	used with that tool for the impact of this.
7	I am just
8	MS. BEHLING: Okay. That was my
9	question.
10	CHAIRMAN GRIFFON: That was the
11	question.
12	MR. SIEBERT: Yes. I know we did.
13	I am just trying to figure out if I can find
14	documentation as such.
15	CHAIRMAN GRIFFON: That's a good
16	question, though. And, Doug, pick it up on
16 17	question, though. And, Doug, pick it up on 152.4 when you're ready.
17	152.4 when you're ready.
17 18	152.4 when you're ready.  MR. FARVER: 152.4. The finding
17 18 19	152.4 when you're ready.  MR. FARVER: 152.4. The finding  was that the report does not account for all

And they'll report tritium doses, which are not always the same doses that are calculated from tritium bioassays.

And it has to do with how they

determine their tritium exposures for

personnel monitoring for -- I don't know what

to say, but they use their external dosimetry

to regulate their exposures to tritium, I

guess is one way to say it.

And so what we are pointing out there is a couple of discrepancies between what is in the HPAREH report and what was used for the dose assessment. It has to do with subtracting out tritium. It's not stated anywhere.

And, really, we just suggest that they document what they do. In other words, if you are going to pull out about 70 percent of the dose and call it tritium, just document it somewhere, like in the technical basis.

CHAIRMAN GRIFFON: But you are

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1	saying here to well, it's hard with the
2	summary finding sometimes, but
3	MR. FARVER: Right. That's why
4	I'm looking at the report.
5	CHAIRMAN GRIFFON: the DR
6	report does not account for all the recorded
7	dose.
8	MR. FARVER: Right. That's why
9	we're looking at the report.
10	CHAIRMAN GRIFFON: The DR report
11	does not account for all the recorded dose.
12	What you just said
13	MR. SIEBERT: That was initially
14	the finding because it was thinking that the
15	tritium dose was actually photon dose. And
16	if you thought that, then you thought we
17	didn't do all of the photon.
18	CHAIRMAN GRIFFON: Okay.
19	MR. FARVER: Well, if you look at
20	an HPAREH report, the values that are in that
21	report are not always the values that are
22	how shall I say it? Okay.

1	MR. SIEBERT: In HPAREH, they are
2	all lumped together as external because
3	Savannah River just considered tritium
4	external because it was whole body.
5	And if you just look at HPAREH,
6	look at 100 millirem, you would immediately
7	think it is 100 millirem photon. The 70
8	might be from tritium.
9	And we actually have to pull that
LO	out when we do the external and then
L1	CHAIRMAN GRIFFON: How do you pull
L2	it out?
L3	MR. SIEBERT: Just subtract it out
L4	in the tool.
L5	CHAIRMAN GRIFFON: But how do you
L6	know what percentage or whatever?
L7	MR. SIEBERT: Because in the cycle
L8	data
L9	CHAIRMAN GRIFFON: In the cycle
20	data, it's there? Okay.
21	MR. SIEBERT: Yes. It shows the
22	difference.

1	CHAIRMAN GRIFFON: That's what I
2	was trying to
3	MR. SIEBERT: They added that in.
4	MR. FARVER: Now, we have included
5	a couple of exhibits in there. For example,
6	if you look at the dosimeter card for 1975,
7	there is a 195-millirem deep dose,
8	210-millirem shallow dose, and 455 for
9	tritium. If you look at the HPAREH for 1975,
10	it's 670 deep dose or maybe I've got that
11	backwards. I've got that backwards.
12	The HPAREH is the lower value.
13	And the dosimeter card is 640 deep, instead
14	of the HPAREH's 195 deep. So they subtracted
15	out 455 millirem and called it tritium.
16	MR. SIEBERT: Which is in HPAREH
17	under the tritium column.
18	MR. FARVER: Which is in HPAREH
19	under the tritium column, but it's not in the
20	dosimeter card, the handwritten card. And
21	all we're suggesting in I understand what

you do because basically I know what they did

1	there, but you should probably document it
2	because I don't know that it's documented
3	anywhere in a technical basis that that is
4	how you handle the tritium result. And it
5	could lead people to ask questions.
6	CHAIRMAN GRIFFON: Doug, when you
7	say, document, document where?
8	MR. FARVER: You can put it in the
9	external basis for Savannah River, something
10	like that.
11	CHAIRMAN GRIFFON: Okay. Does
12	NIOSH agree with that or
13	MR. HINNEFELD: Well, sitting here
14	it sounds reasonable.
15	CHAIRMAN GRIFFON: Yes, yes.
16	I think I would want to go make sure that
17	there is not something better that people
18	would know
19	MR. FARVER: And what this leads
20	to is when you look at the HPAREH report and
21	you see these tritium results, let's say it
22	says 455 millirem per tritium in 1975.

1	Now later on we might calculate a
2	tritium dose for this person based on
3	bioassay samples, which may or may not equal
4	455 millirem. It might equal ten millirem.
5	So how do you explain that? I want to please
6	explain it somewhere. So it's just a
7	suggestion to eliminate some questions.
8	I don't remember if it was used in
9	lieu of bioassay. I don't believe it was. I
10	believe it was used as a more real-time way
11	to control exposure.
12	MR. HINNEFELD: What are you
13	talking about, in HPAREH, you mean?
14	MR. FARVER: No. On the external
15	dosimetry part because I know they subtracted
16	it out from the TLD when the TLDs were read.
17	I think the TLDs were read more frequently
18	for tritium people.
19	MR. HINNEFELD: I don't recall.
20	CHAIRMAN GRIFFON: That was sort
21	of my follow-up. A follow-up question I have
22	is

1	MR. FARVER: If it's used in lieu
2	of bioassay data to control exposure.
3	MR. HINNEFELD: Oh, what Savannah
4	River did, yes.
5	MR. FARVER: Yes, Savannah River.
6	MR. HINNEFELD: Yes. I think they
7	had set intakes based on bioassay. You know,
8	they set doses based on the model that was
9	applicable at the time.
10	MR. FARVER: That's what I
11	believe, but I believe the TLDs were read
12	more frequently and gave a more real-time
13	MR. HINNEFELD: Well, that could
14	be real-time, but I think what they chose to
15	reflect in HPAREH was the dose that counts
16	towards the person's 5 rem a year exposure
17	because the tritium as the whole body dose
18	would be directly additive to the photon
19	dose. And so that is essentially the
20	demonstration of compliance with the data,
21	the five rem exposure limit.

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MR. FARVER: Okay.

1	MR. HINNEFELD: I would think that
2	is why they would incorporate it there.
3	CHAIRMAN GRIFFON: Yes. They just
4	add the two of
5	MR. HINNEFELD: Yes.
6	MR. FARVER: That's okay. I just
7	don't remember reading that anywhere in any
8	of your documentation.
9	MR. HINNEFELD: Well, I don't know
LO	that I have ever read that. I just would
L1	suspect it. Why in the world would somebody
L2	do that? I would say that would be it.
L3	CHAIRMAN GRIFFON: Yes.
L4	MR. HINNEFELD: You have got all
L5	the whole body dose in one place.
L6	CHAIRMAN GRIFFON: It's all whole
L7	body dose.
L8	MR. HINNEFELD: It's all whole
L9	body dose. And you
20	MR. SIEBERT: Savannah River is
21	not the only one. I know that across the
22	complex, there were other places that thought

1	of tritium as a whole body dose
2	MR. HINNEFELD: Yes.
3	CHAIRMAN GRIFFON: Yes.
4	MR. SIEBERT: even though
5	that's internal, rather than external.
6	CHAIRMAN GRIFFON: Right.
7	MR. HINNEFELD: Not going to be as
8	effective a dose, which now is, of course,
9	out of date.
10	MR. FARVER: So that was 152.4.
11	152.5 is the dose conversion factor for
12	neutron doses to organ dose.
13	CHAIRMAN GRIFFON: Same thing as
14	.2, right?
15	MR. FARVER: Yes. That one has
16	been taken care of previously by 152.2.
17	152.6 has to do with the ongoing
18	internal dose from fission products. And I
19	am going to ask, Kathy, if you could help me
20	out on this.
21	MS. BEHLING: Okay. This is just
22	the finding that we have all talked about

many times before, but I guess in calculating missed fission product dose, NIOSH uses a radionuclide chooser tool. And they select the radionuclide that will provide the highest dose.

I guess our comment is that is fine. And we don't dispute that, but what about the dose from other radionuclides, other potential missed radionuclides? And there is a list of the various radionuclides in table D2 of the Savannah River site.

So this has been a very common question. The only thing that -- and I guess Stu can explain this better, but in the response, if I'm reading this correctly, it almost sounds like the radionuclide chooser tool actually does incorporate contributions from the other radionuclides.

If that is the case, then that would resolve this finding, but I am not sure I quite understand the response.

MR. HINNEFELD: Yes. I am not

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sure I am really conversant with this, but
I've got some general --

MR. SIEBERT: Well, what the response is saying is the chooser includes all of those radionuclides for the decision as to which is the most claimant-favorable.

And then we determine from that the most claimant-favorable, just as you said. It's consideration as to which ones to assign, not assigning the largest one and all the other ones as well.

MR. HINNEFELD: Yes. And there is a lot that goes into this decision. I mean, there is -- first of all, it's a way to not do a separate intake of dose calculation for 12 radionuclides, many of which are inconsequential, or it is the selection process is supposed to provide not your best estimate of the intake of the highest dose radionuclide but, rather, an estimate that it is sufficiently high that the dose that you get is bounding for the suite of

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1 radionuclides to -- that is the intent, is to -- rather than do all of these calculations, 2 do one that bounds them all. 3 Now, how well that has ever been 4 5 explained I don't know. And the basis for 6 choosing the value that was chosen I can't 7 explain very well. But, as I recall, as I am sitting 8 here, I am reminded of all of these things I 9 10 should be doing for this Subcommittee. CHAIRMAN GRIFFON: That's good. 11 Yes, but, you see, 12 MR. HINNEFELD: 13 my only hope is I am telecommuting tomorrow and nobody interrupts me too much. So I can 14 work on it tomorrow. 15 16 So I think that is what we owe to kind of address this whole raft of issues. 17 And certainly it would be at least the 18 19 Savannah River issues I think the response 20 can be in the response. I think we may have the same issue at Hanford. Maybe the Hanford 21

response will get it consistent. If it were

1	the same response, I don't know if that is
2	going to be the case or not.
3	So this is an issue we know. And
4	this is defining issues that have been around
5	for a while.
6	MR. SIEBERT: Well, this ties into
7	the OTIB 54 for
8	MR. HINNEFELD: Yes.
9	MR. SIEBERT: whole body
LO	comparison because that is really what this
L1	boils down to.
L2	MR. HINNEFELD: Yes.
L3	CHAIRMAN GRIFFON: So that was my
L4	next question. Is this a Savannah River site
L5	profile issue or is it a TIB 54?
L6	MR. SIEBERT: Well, remember, TIB
L7	54 didn't exist back at this time frame.
L8	CHAIRMAN GRIFFON: I know it's
. 0	CHARLES CHILLOW. I MICW IC D
L9	not, but I'm saying as far as the
L9	not, but I'm saying as far as the

1	we want to be able to demonstrate that if you
2	base it on OTIB 54 versus using chooser, 54
3	will be low. That's kind of what that
4	comparison is we're discussing for that
5	comparison.
6	MEMBER MUNN: But is it more
7	realistic?
8	CHAIRMAN GRIFFON: You had a
9	question?
10	MR. SIEBERT: Yes. Well
11	CHAIRMAN GRIFFON: More realistic?
12	MR. HINNEFELD: Fifty-four we
13	believe to be, yes, more realistic than
14	chooser, right?
15	MR. SIEBERT: Yes.
16	MR. HINNEFELD: And so if 54 is,
17	in fact, lower than the chooser approach and
18	we're looking at what we're using now, then
19	we don't have to worry about these ones that
20	were done earlier with chooser approach.
21	That's the thought process.
22	MEMBER MUNN: Right.

1	MS. BEHLING: And I guess I would
2	have to look a little bit deeper into OTIB 54
3	and, like I said, make a comparison.
4	MR. HINNEFELD: Yes, but I think
5	the action is really ours to put together a
6	coherent explanation on this.
7	MS. BEHLING: Okay.
8	MR. SIEBERT: And we've been
9	talking about this. And a lot of the other
10	radionuclides if you assigned what we do
11	assign would shine out like a bright, shining
12	light in the whole body count because their
13	detection limits tend to be lower. But it is
14	a comparison we have to do.
15	MS. BEHLING: Okay. Very good.
16	CHAIRMAN GRIFFON: Okay. Go
17	ahead, Doug. I'm sorry.
18	MR. FARVER: Another thing we have
19	is an observation about Super S plutonium.
20	Apparently it's been returned to be reworked.
21	MR. HINNEFELD: It is being
22	MR. FARVER: And that was it for

1	tab 152.
2	CHAIRMAN GRIFFON: Do you want to
3	take a five-minute break? Can anybody use a
4	five-minute break?
5	MR. HINNEFELD: That would be
6	good, I think, if we can
7	CHAIRMAN GRIFFON: Yes. Let's
8	take five. Wanda, we are going to take about
9	five, maybe a ten-minute break.
10	MEMBER MUNN: Thank you.
11	CHAIRMAN GRIFFON: All right.
12	Thanks.
13	(Whereupon, the above-entitled
14	matter went off the record at 3:48
15	p.m. and resumed at 4:00 p.m.)
16	MR. KATZ: We are starting back up
17	the Dose Reconstruction Subcommittee review,
18	procedure 153. Is that what you said, Mark?
19	CHAIRMAN GRIFFON: Yes.
20	MR. KATZ: Wanda, are you back
21	with us?
22	MEMBER MUNN: I am.

1	CHAIRMAN GRIFFON: Not procedure
2	153, but
3	MR. KATZ: Right, right.
4	CHAIRMAN GRIFFON: case 153.
5	MR. KATZ: Case, case.
6	CHAIRMAN GRIFFON: And that's why
7	I think we are going to try to plug away for
8	another half-hour, maybe a little more,
9	Wanda. Then we'll call it a day because we
10	have made some good progress. Actually, I'm
11	losing people as we speak. They're dropping
12	like flies in the room here. So about a
13	half-hour, maybe 40 minutes. And then we'll
14	call it a day.
15	MEMBER MUNN: Never had the
16	experience, Mark.
17	MR. KATZ: You never had the
18	experience? Is that what you said?
19	MEMBER MUNN: Seeing people begin
20	to disappear at the end of the day.
21	CHAIRMAN GRIFFON: Oh, yes. I
22	know. I know. Right. So, Doug, I will turn

it over to you to start 153.1.

MR. FARVER: Okay. 153.1. We reported that the dose report does not include a less than 30 keV proton dose for year 1982.

This is another Savannah River site. The employee was a laborer and worked there from '51 through '82, so 30 years. And doses were calculated for less than 30 keV protons for the other years but not for 1982. So we questioned, you know, why not 1982?

And NIOSH responded back that according to TIB 6, having to do with aluminum filtration, and a dosimeter was not used after 1981, that you do not include shallow dose unless it's a certain organ. It would have an effect.

I guess that just brings up a couple of questions. First, if you look at the -- in 1982 -- and it was 221 FB line, where the person worked. And the energy distribution says 100 percent less than 30

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1	keV and 100 percent 30 to 250 keV, which made
2	us wonder why we didn't have the 1982 dose.
3	Now, I understand the TIB 6 and
4	the filtration. I guess what I was trying to
5	find real quick was the energy distribution
6	for 221 FB line. And I can't find it to say
7	that it's 100 percent 30 to 250 keV. That's
8	my concern at the moment.
9	MR. HINNEFELD: I can't remember.
10	MR. FARVER: And I want to make
11	sure I've got the right rev document.
12	CHAIRMAN GRIFFON: So 153.1 and .2
13	are
14	MR. FARVER: Are the same?
15	CHAIRMAN GRIFFON: missed dose,
16	right? Yes.
17	MR. FARVER: I am looking at rev
18	1, page 99. And there's a table 5.3.4.1-1,
19	where it lists the beta and photon radiation
20	energies.
21	And I go down to 221 FB line. And
22	it says it should be 25 percent 30 keV and 75

1	percent 30 to 250 keV, which means I should
2	still have a 30 keV dose.
3	Well, I don't know.
4	MR. HINNEFELD: Well, I am going
5	to have to learn more about this. I'm
6	looking at my response. Apparently the only
7	way the response makes sense is if you base a
8	30 keV before the well, the aluminum
9	filter must be over the entire dosimeter,
LO	over the shallow or whatever.
L1	MR. FARVER: Your response is
L2	correct. That is what TIB 6 says.
L3	MR. HINNEFELD: Okay. So if
L4	MR. FARVER: But it says if you
L5	default to the distribution that's in the
L6	technical basis. So then I went to the
L7	technical basis to see what the distribution
L8	was. And it says it's 25 percent 30 keV and
L9	
20	MR. HINNEFELD: Was there a
21	shallow reading or open window reading for
22	'82? And was that apportioned in some

fashion?

MR. FARVER: Not that we could find. I mean, there was a -- let's see.

MR. HINNEFELD: Well, there are two possible explanations that come to mind based on our response. One is that up through 1981, there was an aluminum filter over the badge. And so you could not count on the shallow element to read a less than 30 keV photon. So it was inferred from the deep reading.

The deep reading was not considered to be based because of the 30 keV, but it was due to the 30 to 250. But you would have the similar quantity or whatever, a ratio based on the ratios in the tables you cited, that, in addition to generating the 30 to 250 number from the deep TLD, you would also infer what the 30 keV would be based on those ratios because the aluminum filter would prevent the shallow dosimeter from reading it.

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After '81, when the aluminum filter was no longer there, a shallow dosimeter would be capable of reading the less than 30 keV photon. And so if there were a less than 30 keV photon exposure, it would be recorded accurately in the shallow dose. And then that could be assigned either as a shallow dose or as a beta dose because they work out the same. You know, the quality factors are the same. The risk factors are the same.

particle, if either is recorded, I mean, if there was a reading in the shallow window and either one appears in dose reconstruction, then that would be the shallow reading. And then if there is no reading in the shallow, then we are back to that whole thing about missed doses and if you have a reading in this and nothing in that, do you really have a missed dose or not?

So that is the only way. I don't

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1	know if that is the case or not, but that is
2	the only way our response makes sense.
3	MR. FARVER: Yes. I was ready to
4	agree with your response until I went and
5	looked up the TBD and I saw that the
6	distribution was 25-75.
7	MR. HINNEFELD: But in that case,
8	though, if there is no aluminum filter, those
9	photos are less than 30 keV photons. I mean,
10	those are defaults.
11	I mean, you would always use what
12	the dosimeter tells you to use if they're
13	just going to be reading appropriately. And
14	you would use those energy ranges to
15	apportion your dose into the various IREP
16	bins.
17	But you would only use those
18	ratios to generate the dose number if, for
19	some reason, the dosimeter didn't provide you
20	the accurate dose number.
21	MR. FARVER: But according to TIB
22	6, the deep dose quantity during this period,

1	which is for the period 1982 to present, the
2	guidance provided in the Savannah River
3	technical basis document should be used to
4	determine the photon energy distribution of
5	the deep dose; i.e., 25 percent less than 30
6	keV and 75 percent
7	MR. HINNEFELD: Okay. So, then,
8	we'll come at the okay. Okay. Well, I
9	don't understand our response, then.
10	MR. FARVER: I just want to make
11	sure it's consistent.
12	CHAIRMAN GRIFFON: I think you
13	just have that as NIOSH to follow up on that,
14	right?
15	MR. HINNEFELD: Yes, yes.
16	CHAIRMAN GRIFFON: It was 153.1
17	and .2.
18	MR. HINNEFELD: Well, it would be
19	helpful for me to understand what was going
20	on.
21	CHAIRMAN GRIFFON: Yes.
22	MR. FARVER: And you can explain

1	it to me so I can understand it so I don't do
2	this again.
3	MR. HINNEFELD: If I ever
4	understand it.
5	MR. FARVER: I thought I
6	understood it before I went to look it up.
7	And that will take care of 53.1 and 53.2.
8	153.3, 153.4, and 153.5 are the same
9	converted photon doses and missed doses and
10	neutron doses to organ doses with the dose
11	conversion factors in the workbook. And the
12	workbook has been corrected.
13	CHAIRMAN GRIFFON: Do you know if
14	this case is under PER review also?
15	MR. HINNEFELD: I suspect it is.
16	Almost everything at Savannah River came
17	back.
18	CHAIRMAN GRIFFON: Yes. You don't
19	have any way Scott has that listing?
20	MR. HINNEFELD: Well, Scott had
21	CHAIRMAN GRIFFON: Yes, yes.
22	MR. HINNEFELD: I could probably

1	find out. Oh, I know. You've got the
2	tracking numbers in your guys' report. I
3	think I
4	CHAIRMAN GRIFFON: The only reason
5	I ask is because I have been putting that in
6	my resolution so that we can eventually go
7	back and look at all the PER, you know, if we
8	want to re-review any of the PER review cases
9	or rerun cases, whatever. It is getting
10	late.
11	So that brings us up to 153.6.
12	While Scott is checking on that number, we
13	can go ahead with that.
14	MR. FARVER: For some reason, I
15	left these two blank: 56.6 and .7. I am
16	going to have to check those.
17	CHAIRMAN GRIFFON: Maybe it's
18	because do you have the NIOSH response in
19	your matrix?
20	MR. FARVER: Yes, but I don't have
21	my response. And I don't know why.
22	CHAIRMAN GRIFFON: It's a recently

inserted response. That's what I understand.
MR. FARVER: Okay.
CHAIRMAN GRIFFON: Okay.
MR. FARVER: I don't have a
response for those two to check those two
out.
CHAIRMAN GRIFFON: I'm just going
to put that as an SC&A will provide a
response.
MR. FARVER: Right.
CHAIRMAN GRIFFON: Okay.
MR. HINNEFELD: The claim you
talked about did get returned for the Super
S.
CHAIRMAN GRIFFON: Thanks.
MR. HINNEFELD: And it's not yet
approved. The new dose is not yet approved.
CHAIRMAN GRIFFON: Okay. So that
moves us down to that was 153.6 and .7,
right, Doug?
MR. FARVER: Yes.
CHAIRMAN GRIFFON: Okay. 153.8?

1	MR. FARVER: This is fission
2	products, internal doses, which I believe
3	it's the same finding that we addressed in
4	the previous case.
5	CHAIRMAN GRIFFON: Yes. These are
6	both Savannah River. So we have
7	MR. FARVER: Yes.
8	CHAIRMAN GRIFFON: Yes. Okay.
9	And then you have an observation?
LO	MR. FARVER: Yes. It was we
L1	just questioned on how you handle absorption
L2	types for multiple organs. In other words,
L3	type S might be more favorable for one organ.
L4	And type F or M might be more favorable for
L5	another one. But you really can't have both
L6	of the same material. So how do you handle
L7	that?
L8	And they provided a very good
L9	response basically saying if it's an
20	overestimate, you would do a separate organ
21	to determine the absorption type, but for a

best estimate, you kind of have to make the

1	decision on which one has more impact on the
2	cancer.
3	CHAIRMAN GRIFFON: So this was a
4	multiple cancer?
5	MR. FARVER: Multiple cancer.
6	CHAIRMAN GRIFFON: Yes. Okay, and
7	you have observation number 2 as well.
8	MR. FARVER: Oh, this looks like
9	this is the Super S.
10	MR. HINNEFELD: Super S plutonium.
11	And it has been.
12	MR. FARVER: And it has been. And
13	that should take care of tab 153.
14	MR. HINNEFELD: Right. Moving on
15	to 154.
16	MR. FARVER: One fifty-four is
17	another Savannah River site case. The worker
18	was there from '51 through '66, had lung
19	cancer, a heavy equipment operator.
20	154.1 and 154.2.
21	CHAIRMAN GRIFFON: Same as before,
	right? It looks like similar issues.

1	MR. FARVER: I don't believe it is
2	the same.
3	MR. HINNEFELD: This is one you
4	agree with.
5	MR. FARVER: Oh, okay. It has to
6	do with the method to calculate less than 30
7	keV proton doses.
8	CHAIRMAN GRIFFON: And NIOSH
9	agrees, yes.
10	MR. FARVER: The way they were
11	calculated, we didn't believe they were
12	calculated appropriately. They only give an
13	example of what we believe the calculation
14	should be. And I guess they agree it was
15	incorrectly calculated.
16	The only thing I can respond to
17	that is how do you prevent that from
18	happening again. Was it a workbook error or
19	was it a person error?
20	MR. HINNEFELD: I'll have to find
21	out.
22	MR. FARVER: And that's the same

1	for 154.1 and 154.2.
2	CHAIRMAN GRIFFON: Let me catch up
3	to you, Doug. Just one second.
4	MR. FARVER: Sure.
5	CHAIRMAN GRIFFON: Okay. It's the
6	same for 154.2 and .3, you said? No?
7	MR. FARVER: 154.1 and
8	CHAIRMAN GRIFFON: And .2.
9	MEMBER MUNN: Yes.
LO	CHAIRMAN GRIFFON: Right. Go
L1	ahead.
L2	MR. FARVER: Okay. 154.3 is the
L3	intake
L4	MEMBER MUNN: I didn't hear what
L5	we were going to do with 1 and 2, .1 and .2.
L6	It was agreed in my mind that these had all
L7	been closed, but I heard the question asked
L8	about why.
L9	CHAIRMAN GRIFFON: Right. I have
20	
21	MEMBER MUNN: And I didn't hear an
22	answer.

1	CHAIRMAN GRIFFON: Yes. NIOSH is
2	going to review to determine the nature of
3	the error and then, you know, the question of
4	how can we prevent it going forward. So we
5	need to know sort of what was it, just a
6	mistake by the DR. Was it a work
7	MEMBER MUNN: Right, right. Got
8	it. Just did not hear any response.
9	CHAIRMAN GRIFFON: Sorry. Yes.
LO	We're getting a little quiet here.
L1	MEMBER MUNN: All right. Thanks.
L2	CHAIRMAN GRIFFON: All right.
L3	MR. FARVER: Okay. 154.3. We are
L4	really just pointing out that the intake date
L5	that they used for their calculations is not
L6	the same date that's in the DR report. It
L7	lists a date of 1965 when it is really 1964,
L8	just more of a review-type error. Maybe that
L9	should have been caught.
20	CHAIRMAN GRIFFON: You are saying
21	there was a typo in the report but not in the

IMBA analysis, right? Is that?

1	MR. FARVER: Correct.
2	CHAIRMAN GRIFFON: Yes, yes.
3	MR. FARVER: The correct dates
4	were used in the analysis, but the
5	CHAIRMAN GRIFFON: So the number
6	calculated was correct?
7	MR. FARVER: Yes.
8	CHAIRMAN GRIFFON: So NIOSH agrees
9	with that, right?
10	MR. HINNEFELD: Yes.
11	CHAIRMAN GRIFFON: There is no
12	further action in my opinion. Okay? So that
13	is closed, Wanda. Are we loud enough still?
14	MEMBER MUNN: I got it.
15	CHAIRMAN GRIFFON: Keep us awake.
16	MR. HINNEFELD: It's not quite
17	2:00 o'clock out there.
18	CHAIRMAN GRIFFON: Yes.
19	MEMBER MUNN: Yes. But I just had
20	a ten-minute lunch.
21	MR. FARVER: 154.4, failure to
22	account for unmonitored tritium doses. What

1	is a quick way to explain this? Basically we
2	believe they forgot the year 1957 because the
3	employee was monitored for external dose.
4	And he falls under the criteria that is in
5	the technical basis that they should have
6	been assessed a tritium dose because they
7	monitored for external dose in that year. Is
8	that correct, Stu?
9	MR. HINNEFELD: Well, for whatever
10	reason, we agreed with the finding.
11	CHAIRMAN GRIFFON: Okay.
12	MR. HINNEFELD: A monitored
13	tritium should have been included for 57
14	according to our response.
15	MR. FARVER: And dose-wise it's
16	not a big concern. It's just a concern, and
17	it slipped through.
18	MR. HINNEFELD: Yes.
19	CHAIRMAN GRIFFON: I will ask the
20	same question I asked for the last case. Is
21	this under PER review? I would probably
22	assume. We might as well check, though,

1	while we're doing this if that's okay.
2	MR. HINNEFELD: Okay.
3	CHAIRMAN GRIFFON: So NIOSH agrees
4	with this. And no effect on the case,
5	though, is what we're hearing, right?
6	MR. FARVER: It would not impact
7	the
8	CHAIRMAN GRIFFON: What was the
9	POC on this?
10	MR. FARVER: The low 40s. Let me
11	get back to it. Forty-six.
12	CHAIRMAN GRIFFON: I hate to
13	hastily write this no effect on the case
14	without checking that.
15	MR. FARVER: Yes.
16	CHAIRMAN GRIFFON: The other thing
17	is that it is under review anyway under the
18	PER. So it is going to be reworked most
19	likely. That is why I wanted to find out.
20	MR. FARVER: It probably will
21	CHAIRMAN GRIFFON: Yes.
22	MR. FARVER: because that's one

1	of our next observations for the Super S.
2	But before we go there, we have 154.5, which
3	is a failure to account for all unmonitored
4	fission product doses. And we have seen
5	these points before.
6	Oh, no. This is a little
7	different. This goes back to that same
8	segment where the TBD, section 4.4.3, workers
9	monitored for external dose but had no
10	bioassay for each year of assumed exposure
11	period assign an annual dose from missed
12	tritium.
13	Annual missed dose is equal to
14	tritium doses and entered into the IREP has
15	less than 15 keV to account for fission
16	products. And then it accounts for fission
17	product based on that little segment, section
18	4.4.3. So that is where that finding comes
19	from.
20	CHAIRMAN GRIFFON: I lost you a
21	little bit here.

MR. FARVER: Okay.

1	CHAIRMAN GRIFFON: Okay. I see
2	NIOSH's response. It says, see 154.5-D2A.
3	Should it be .4? Do you see where I am at?
4	MR. FARVER: Yes.
5	CHAIRMAN GRIFFON: That should be
6	.4, right?
7	MEMBER MUNN: Yes.
8	MR. HINNEFELD: Yes, yes.
9	CHAIRMAN GRIFFON: Okay.
10	MR. FARVER: Does NIOSH agree that
11	they should have fission products or not
12	MR. HINNEFELD: Yes.
13	MR. FARVER: or just the
14	environmental fission products?
15	MR. HINNEFELD: No. I think if it
16	gives the same, that makes it clearly must
17	refer back to the .4. And this is both of
18	those, both the unmonitored tritium and the
19	unmonitored fission products, are essentially
20	in the same variables, right?
21	MR. FARVER: Yes.
22	MR. HINNEFELD: The same reason

1	we'll put them in.
2	MR. FARVER: Yes.
3	MR. HINNEFELD: And they were both
4	left out. So yes.
5	MR. FARVER: Okay.
6	MR. HINNEFELD: And this case was
7	returned for
8	CHAIRMAN GRIFFON: Okay.
9	MR. FARVER: Yes, which is an
10	observation, insoluble plutonium.
11	CHAIRMAN GRIFFON: Okay. Oh, yes.
12	I see it in the next one. That brings us up
13	to 155.
14	MR. FARVER: One fifty-five.
15	CHAIRMAN GRIFFON: Try one more.
16	Yes, let's try one more. What the heck?
17	MR. FARVER: Okay. And another
18	Savannah River case.
19	CHAIRMAN GRIFFON: Another
20	Savannah River. I was hoping for a little
21	variety.
22	MR. FARVER: No.

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1	CHAIRMAN GRIFFON: That's all
2	right.
3	MR. HINNEFELD: Hey, blame them.
4	They sort them together.
5	CHAIRMAN GRIFFON: Yes. I know.
6	I was thinking it probably is another
7	Savannah River.
8	MR. FARVER: I think he took the
9	blame for that one. Okay. The employee
LO	worked there from 1978 to [Identifying Information
L1	Redacted], had renal
L2	cell carcinoma and leukemia. This was a [Identifying
L3	Information Redacted].
L4	Okay. The first finding is 155.1.
L5	NIOSH did not properly account for all missed
L6	proton doses from I'm not sure of a good
L7	way to explain this, although no response
L8	gives a good explanation.
L9	There are two parts. The first
20	part had to do with the results that were
21	less than half of the dosimeter limit. Okay.
22	In the dosimetry record, there were 143

1	zeros, zero entries.
2	And the first part of it was there
3	were some entries in there that were less
4	than the LOD over 2.
5	So that was the first part of
6	their response, heard five times. And it was
7	handled according to how it should have been
8	handled at that time.
9	MR. HINNEFELD: Guidance at that
LO	time.
L1	MR. FARVER: At that time. The
L2	second part has to do with the zero entries.
L3	There were 143 zero entries. Plus, there
L4	were also three-quarters of the recorded data
L5	for '92 and also for 1995. So you have to
L6	add in some extra quarters, two extra
L7	quarters, to account for missed dose.
L8	And that was not done. And that's
L9	what they say in the second part of their
20	response, that they agree with that, and we
21	can concur with their response, agree.

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CHAIRMAN GRIFFON: Can you check

1	this one, too, Stu? It's in PER review or
2	whether it is.
3	MR. HINNEFELD: It was returned.
4	CHAIRMAN GRIFFON: So in the
5	second half, I got the first step of that.
6	NIOSH agrees with the second part. Is that
7	what I'm hearing?
8	MR. HINNEFELD: Yes.
9	CHAIRMAN GRIFFON: That it
10	wouldn't impact the case significantly. Is
11	that
12	MR. HINNEFELD: I don't think so,
13	but it has been reworked anyway.
14	CHAIRMAN GRIFFON: Reworked,
15	right. Okay.
16	MR. HINNEFELD: This one and the
17	one before at least have been approved by
18	NIOSH after the PER. The reworked one has
19	been approved by NIOSH. But I don't know if
20	it's final or adjudicated.
21	CHAIRMAN GRIFFON: Yes. Go ahead,
22	Doug. I'm sorry.

MR. FARVER: 155.2, we have a concern about the work location that was assigned for 1985. And this falls under neutron doses, I believe, yes. We're talking about neutron doses.

NIOSH assigned the measure to missed neutron dose for 221H in 1984 and 221F in 1985. When we looked at the records, we saw the dosimeter location's area 3F for 1984 and again in area 3F in 1985. Therefore, we thought the assignments for '84 and '85 should have been both been for F area, instead of the H and F in '85.

This goes back just to the tricky part. I'm just trying to figure out where the person worked. And NIOSH presents their reasoning that -- we'll see what this person did. The person is a pipefitter. So he would fall under construction most likely.

And construction could be anywhere. Most likely their dosimeter is one-to-one location.

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1	They presented a response. I will
2	have to look at it and see if it will impact
3	the dose. Probably not because it is for a
4	single year. I can't say that their
5	reasoning is any better than our reasoning.
6	CHAIRMAN GRIFFON: Right.
7	MR. FARVER: So I don't know how
8	we close that out other than saying that we
9	understand what they did. And it is kind of
10	a subjective call. And for this case, it's
11	not important POC-wise.
12	CHAIRMAN GRIFFON: Right. What is
13	the POC for this?
14	MR. FARVER: Thirty-two percent,
15	something like that.
16	MEMBER MUNN: Can we say response
17	acceptable, close?
18	CHAIRMAN GRIFFON: Yes, especially
19	since it is being reviewed anyway.
20	MR. FARVER: Yes.
21	CHAIRMAN GRIFFON: So yes. I say,
22	SC&A understands what NIOSH did and believes

1	it is a subjective call. No further action
2	for this case.
3	MEMBER MUNN: Good.
4	CHAIRMAN GRIFFON: which is
5	under PER review.
6	MR. FARVER: I only wanted to
7	point it out because I can't guarantee that
8	won't come up in another case,
9	CHAIRMAN GRIFFON: I know. Right.
10	MR. FARVER: where we have a
11	little difference of opinion about the
12	records, designation of the records.
13	CHAIRMAN GRIFFON: Right. Okay.
14	MR. FARVER: 155.3, we did not
15	include all missed neutron dose periods. We
16	both agree there were 20 zero entries. But
17	we looked closely at the DOE records, and we
18	saw zeros in the neutron column for eight
19	additional entries. So it should be 28
20	zeros, instead of 20, not much impact on the
21	dose.

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MR. HINNEFELD: In our response,

1	we agreed to the finding.
2	CHAIRMAN GRIFFON: No further
3	action. Okay. 155.4?
4	MR. FARVER: 155.4, NIOSH used
5	one-half bioassay data, instead of one-half
6	in the MDA values. Okay. Typically what you
7	would do this is for the internal dose
8	calculation is you use one-half the MDA
9	values when it's less than MDA. And, near as
10	I can tell, they used one-half the bioassay
11	value.
12	MR. HINNEFELD: Well, response
13	would indicate that the
14	CHAIRMAN GRIFFON: Yes.
15	MR. HINNEFELD: it's a less
16	than reported value in the bioassay record,
17	
18	MR. FARVER: Okay.
19	MR. HINNEFELD: which is a
20	standard specific MDA or critical level or
21	MDA, I guess, versus the
22	CHAIRMAN GRIFFON: Site profile.

1	MR. HINNEFELD: site profile,
2	which is sort of a generic that you use when
3	you don't have site-specific
4	MR. FARVER: So they reported the
5	MDA?
6	MR. HINNEFELD: Yes.
7	MR. FARVER: Okay. I went back
8	and checked the records. And that's true. I
9	agree with your result. It just wasn't clear
10	to the reviewer because I don't believe the
11	dosimetry records actually state that that is
12	an MDA value.
13	MR. HINNEFELD: Yes. It's not
14	well-explained. We agreed with that.
15	MR. FARVER: I don't know if you
16	want to slip a little statement in your TBD
17	about if the records contain MDA values, you
18	use one-half of the value given in the
19	dosimetry records, the bioassay records.
20	MR. HINNEFELD: I'll make a note.
21	CHAIRMAN GRIFFON: Where would
22	this change occur, or what is being proposed?

1	MR. HINNEFELD: Well, dose
2	proposal is where we would consider in the
3	TBDs where we list these. It's like tables
4	of, you know
5	CHAIRMAN GRIFFON: You have
6	MR. HINNEFELD: If you've got
7	table-specific MDAs, use those instead, you
8	know something like that.
9	CHAIRMAN GRIFFON: So, then, NIOSH
10	is considering that?
11	MR. HINNEFELD: Yes. I'd say we
12	will consider that.
13	CHAIRMAN GRIFFON: Right.
14	MR. HINNEFELD: I don't know what
15	people will tell.
16	CHAIRMAN GRIFFON: I have an idea.
17	MR. HINNEFELD: It could be a lot
18	of changes, a lot of document changes for
19	something that we are already doing anyway.
20	CHAIRMAN GRIFFON: Right, right,
21	exactly. Okay. Are we on the 155.5?
22	MR. FARVER: 155.5, SC&A could not

1	verify NIOSH's bioassay value. This is for
2	strontium. We just couldn't figure out how
3	they came up with the value they used for
4	their calculation. And we give an example of
5	a calculation we think it should be based on
6	the bioassay results from the employee.
7	And so we just finally concluded
8	we don't know how they did it. And then
9	NIOSH's response is and it's an order of
10	magnitude high.
11	CHAIRMAN GRIFFON: So it was a
12	claimant-favorable error, right, basically?
13	MR. FARVER: Correct.
14	MEMBER MUNN: Response accepted?
15	I don't
16	CHAIRMAN GRIFFON: Yes. It's
17	under PER review anyway. So it doesn't
18	matter.
19	MR. FARVER: Response accepted.
20	MR. HINNEFELD: Is 155.6 the same
21	as 155.4?
22	MR. FARVER: Correct. 155.6 is

1	the same as 155.4, I believe, about the
2	one-half bioassay data, instead of the
3	one-half MDA, only this time it's for
4	strontium.
5	CHAIRMAN GRIFFON: 155.6 you said
6	is the same as the 155.4?
7	MR. FARVER: Correct.
8	CHAIRMAN GRIFFON: The MDA
9	question? Okay.
10	MR. HINNEFELD: Yes. This is
11	strontium.
12	CHAIRMAN GRIFFON: Yes. Got you.
13	MR. HINNEFELD: I think it was
14	plutonium, something else.
15	CHAIRMAN GRIFFON: So that's the
16	same action. All right. Go ahead.
17	MR. FARVER: 155.7, failure to
18	account for all internal doses from fission
19	products. Now, that one I believe is the
20	same as our previous ones. And I know we
21	decided on those.
22	CHAIRMAN GRIFFON: I know. Give

1	me a number, and I can
2	MR. HINNEFELD: 152.6 I think is
3	where it appears.
4	MR. FARVER: Correct, 152.6.
5	CHAIRMAN GRIFFON: We said there
6	will be further adjustment. Profile
7	document, NIOSH will compare the model used:
8	the chooser approach or the OTIB 54 approach.
9	MR. HINNEFELD: Yes. We have just
10	neglected to put together
11	MR. FARVER: Yes.
12	MR. HINNEFELD: our
13	comprehensive explanation of why we think
14	that is okay.
15	CHAIRMAN GRIFFON: What number
16	were we just on?
17	MR. HINNEFELD: .7.
18	CHAIRMAN GRIFFON: 155.7?
19	MR. HINNEFELD: Yes.
20	CHAIRMAN GRIFFON: Okay. 155.8.
21	We're coming toward the end here, guys.
22	MR. FARVER: 155.8. NIOSH failed

1	to assign the environmental tritium dose.
2	They did assign cesium, strontium, plutonium.
3	And, therefore, tritium should have been
4	assigned during unmonitored years '78, '82,
5	'84 to '88, and '94 to '95. And there were a
6	couple of years where tritium doses, we
7	acknowledge, were less than one millirem. So
8	they would not get included.
9	MR. HINNEFELD: We agreed with the
10	findings.
11	CHAIRMAN GRIFFON: NIOSH agrees.
12	No further action on that. And then the
13	observations?
14	MR. FARVER: Okay.
15	CHAIRMAN GRIFFON: By definition,
16	I'm thinking the observation does not require
17	any actions.
18	MR. FARVER: No.
19	CHAIRMAN GRIFFON: Right. But
20	let's go through them, nonetheless. I mean,
21	I
22	MR. FARVER: The first observation

was there was an inconsistency in DOE

records. And let me switch documents real

quick, and I'll try and find that. The copy

I was looking at is a draft. And it does not

have those observations in it.

CHAIRMAN GRIFFON: So your

response to NIOSH's response sort of suggests

response to NIOSH's response sort of suggests that you don't disagree that there are inconsistencies, but you take the higher value one there?

MR. HINNEFELD: Yes. The response and the description of the observation are apparently for the year 1989 -- there is a discrepancy between some of the different records in a claim file between HPAREH and HPRED and SLHP3 database. So that seems to be what the other --

CHAIRMAN GRIFFON: Yes.

MR. HINNEFELD: There are two or three different instances of it. And our response is, yes, we know that. We used a higher one each time. We have to go back and

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1	verify the facts that happen, and you want to
2	have them verify that that actually was done.
3	CHAIRMAN GRIFFON: Well, I am
4	assuming
5	MR. HINNEFELD: Yes.
6	CHAIRMAN GRIFFON: Like I said,
7	since it is an observation, I don't think it
8	requires an action. But it's more for our
9	information, right, overall?
LO	MR. HINNEFELD: Yes.
L1	CHAIRMAN GRIFFON: Yes. It might
L2	be an issue with the Savannah River review of
L3	the SEC. We're going to get into the
L4	databases and
L5	MR. HINNEFELD: Right.
L6	CHAIRMAN GRIFFON: Their
L7	consistency, I'm sure we'll dive into that a
L8	little more there.
L9	MR. HINNEFELD: Observation 2 is
20	the Super S plutonium.
21	CHAIRMAN GRIFFON: We've already
22	got that. Okay. I think that brings us to a

1	close since we're all getting very quiet
2	MR. HINNEFELD: Yes.
3	CHAIRMAN GRIFFON: on the
4	microphone. And I've kind of had enough. I
5	don't know about you guys.
6	MR. HINNEFELD: Observation 3 had
7	to do with the medical
8	CHAIRMAN GRIFFON: Oh, there's
9	observation 3? I'm sorry. I didn't see
10	MR. HINNEFELD: Well, it has to do
11	with only the X-ray exams performed as part
12	of routine monitoring were included in dose,
13	which is the approach that's done. If it's a
14	person who has to get an X-ray because of a
15	possible broken leg or something, we don't
16	include those in dose reconstruction.
17	CHAIRMAN GRIFFON: All right.
18	Sorry. I totally missed observation 3.
19	MR. HINNEFELD: That's okay.
20	CHAIRMAN GRIFFON: That's at the
21	end of the page.
22	MR. HINNEFELD: I want to go

1	MEMBER MUNN: One more page here.
2	MR. HINNEFELD: Okay.
3	CHAIRMAN GRIFFON: All right. I
4	think we are about cooked in this one.
5	MEMBER MUNN: You know the 64 is
6	not bad. There are only 50 pages left.
7	CHAIRMAN GRIFFON: You are just
8	getting started, right, Wanda?
9	MEMBER MUNN: Yes, right. Now is
10	the time to really get going.
11	CHAIRMAN GRIFFON: You didn't
12	thank us, but you are welcome for your
13	wake-up call this morning.
14	(Laughter.)
15	MEMBER MUNN: Yes. I appreciate
16	your having done it. I have no idea how that
17	escaped my calendar. It's not on either of
18	my calendars.
19	CHAIRMAN GRIFFON: I don't know.
20	MEMBER MUNN: I am astonished in
21	that I wasn't prepared to be online. Sorry
22	about that.

1	CHAIRMAN GRIFFON: That's all
2	right.
3	MR. KATZ: It was kind of nice,
4	Wanda. You're a little bit feisty first
5	thing.
6	MEMBER MUNN: Well, let me tell
7	you, being hauled out to what? What do you
8	mean it's a Subcommittee meeting? Good
9	grief. That's all right. I'm just glad it
10	isn't video, guys.
11	(Laughter.)
12	CHAIRMAN GRIFFON: Well, we
13	appreciate you being online.
14	MEMBER MUNN: Thanks.
15	CHAIRMAN GRIFFON: All right. And
16	thanks to everyone today. I think we made
17	some good headway, believe it or not.
18	MR. KATZ: Thanks to everyone for
19	all the hard work.
20	CHAIRMAN GRIFFON: It's a long
21	day.
22	MR. KATZ: Yes.

1	CHAIRMAN GRIFFON: But we made
2	some good headway, yes. And I think we will
3	close it out unless there are any final
4	thoughts by our DFO.
5	MR. KATZ: No. We are adjourned.
6	Thank you, everyone on the phone, for hanging
7	in there.
8	CHAIRMAN GRIFFON: Thanks a lot,
9	everyone.
10	(Whereupon, the above-entitled
11	matter was concluded at 4:47 p.m.)
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