#### UNITED STATES OF AMERICA

CENTERS FOR DISEASE CONTROL AND PREVENTION

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NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY

AND HEALTH

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ADVISORY BOARD ON RADIATION WORKER HEALTH

+ + + + +

BLOCKSON WORK GROUP

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FRIDAY, JANUARY 23, 2009

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The work group convened via teleconference at 12:30 p.m. Eastern Standard Time, Wanda Munn, Chair, presiding.

WORK GROUP MEMBERS PRESENT:

WANDA I. MUNN, Chair BRADLEY P. CLAWSON JIM M. MELIUS GENEVIEVE S. ROESSLER

## IDENTIFIED PARTICIPANTS PRESENT:

TED KATZ, Acting Designated Federal
Official
LARRY ELLIOTT, OCAS
JIM NETON, OCAS
TOM TOMES, OCAS
JOHN MAURO, SC&A
BOB ANIGSTEIN, SC&A
HANS BEHLING, SC&A
STEVE OSTROW, SC&A
CHICK PHILLIPS, SC&A
LIZ HOMOKI-TITUS, HHS

## **NEAL R. GROSS**

# P-R-O-C-E-E-D-I-N-G-S

MR. KATZ: Okay. Then so let me kick this off with -- starting with roll call.

Again, this is Ted Katz, and I am the acting designated federal official for the Advisory

Board and for this work group call.

If we could take roll call then beginning with the Board members. Wanda, if you would self-identify and please, of course, address conflict of interest, as well, with respect to Blockson Chemical Company.

CHAIR MUNN: This is Wanda Munn.

I'm Chair of the Blockson Work Group. I have no conflict.

MEMBER ROESSLER: This is Gen Roessler. I'm a member of the Blockson Work Group. I have no conflicts.

MEMBER MELIUS: Jim Melius, member.
No conflicts.

MR. KATZ: Okay, and Brad is still not with us. Okay. Now OCAS/ORAU team please.

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1	MR. ELLIOTT: This is Larry
2	Elliott. I'm the Director of NIOSH's Office
3	of Compensation Analysis and Support. I have
4	no conflicts regarding Blockson Chemical.
5	MR. NETON: This is Jim Neton,
6	NIOSH OCAS. I have no conflict at Blockson
7	Chemical.
8	MR. TOMES: This is Tom Tomes,
9	NIOSH OCAS. I have no conflict.
10	MR. KATZ: Okay, then SC&A please.
11	MR. MAURO: This is John Mauro,
12	SC&A. No conflict.
13	MR. ANIGSTEIN: Bob Anigstein,
14	SC&A. No conflict.
15	MR. BEHLING: Hans Behling, SC&A.
16	No conflict.
17	MR. OSTROW: Steve Ostrow, SC&A.
18	No conflict.
19	MR. PHILLIPS: Chick Phillips,
20	SC&A. No conflict.
21	MR. KATZ: Okay. Other federal
22	employees or federal contractors? Liz? Liz

1	Homoki-Titus, are you with us still?
2	MS. HOMOKI-TITUS: I'm sorry. Yes.
3	Liz Homoki-Titus. I didn't realize you
4	called for federal employees, with Health and
5	Human Services.
6	MR. KATZ: Any others? Okay. Then
7	how about petitioners from Blockson? Okay.
8	How about Congressional representatives or
9	members representatives of congressional
10	offices?
11	Okay, and then how about any
12	other members of the public on the phone who
13	want to self-identify? Okay then. Then I
14	just would remind everyone on the call when
15	you're not speaking to please mute your phone
16	and use *6 if you don't have actually a mute
17	button so that sound from your phone won't
18	interrupt the call.
19	Wanda, it's all yours.
20	CHAIR MUNN: Thank you, Ted, and
21	thank you, all, for joining us this morning.
22	Did I just hear someone come online?

1	MR. MAURO: No. That was me just
2	putting on the mute button.
3	CHAIR MUNN: All right. Fine.
4	Thanks, John. I hope that all of you have
5	received my extremely last moment list of
6	items, which I have listed as outstanding.
7	Has anyone not received that that needs it?
8	It's a brief list. I think we've
9	worked most of the issues to their conclusion.
10	There are only one or two outstanding that I
11	want to make sure that everyone feels
12	comfortable that we have covered.
13	If you all have that list and don't
14	have any addition to it, then we'll proceed
15	from the top. Any additions? All right.
16	Let's start with my asking for
17	assurance from all the Work Group members that
18	you've now had time to adequately review all
19	of the documents that we have generated during
20	our several months of activity regarding the
21	Blockson site.

Is

everyone content with having

1	those documents reviewed now? I'm especially
2	concerned that the white papers having been
3	generated without specific anticipation that
4	they were going to become a part of a
5	permanent record.
6	I should say perhaps not properly
7	identified as going to be a part of the
8	permanent record as all at one time or another
9	been reviewed by the folks involved. I have
10	one question, too.
11	I have no feel not having checked
12	myself for whether those white papers that we
13	generated were appropriately added to the O:
14	drive as data for the Blockson site. Have
15	they been? Do we know, Jim?
16	MR. NETON: Wanda, I think all the
17	ones we're aware of are out there. I don't
18	know with the possible exception of this
19	latest email, the December 23 email, I think
20	they've all been loaded out on the O: drive.
21	CHAIR MUNN: Good.

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NETON:

MR.

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I'll certainly check

1 and verify and make sure that everything is 2 there. CHAIR MUNN: I would appreciate it 3 if you would, and that's one of the things I 4 will ask you about before the Albuquerque 5 meeting. 6 7 Then has everyone also had the email 8 opportunity to see to Dr. Neton just referred? His December 23, 21, 9 10 whichever it was, email with respect to the radon information from Mallinckrodt? 11 Hearing no concerns about that one 12 13 way or the other, then I wanted to very quickly go over some of the things that we 14 15 have, I believe, followed up on at one time or 16 another during our discussions. in the first place 17 We have addressed all of the seven original findings 18 19

that our contractor had brought to use on their review of the site profile.

As you recall, the site profile was redone because of some shortcomings with the

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original document. We looked at both of them focusing, of course, on the final document.

The findings that came back to us from SCA as a result of that included concerns about the default upper bound of uranium intake inhalation had to do with the thorium-232 enrichment ratio and the process strain.

Another thorium-230 concern about not being included in exposure matrix. We spent a significant amount of time addressing concerns relative to the thorium raffinate stream. Put that to bed.

The request for additional data needed to support the radon values that were used and I believe the tail end of some of those concerns is the only thing outstanding for us to discuss today.

We talked about exposure from the tailings. There was a concern about that, which was discussed and agreed to. Then there were trace levels of radium-226 and progeny effects that we addressed.

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1	Is my characterization of those
2	items and their current status accurate to the
3	memory of all of the Work Group members?
4	MR. MAURO: This is John. Yes,
5	that's my understanding also.
6	CHAIR MUNN: All right. That's
7	good. If I don't hear back from somebody with
8	respect to that characterization, that will be
9	the characterization I will make before the
10	full Board in Albuquerque.
11	Now, the most recent and only
12	outstanding concerns that I have on my list
13	have to do with concerns that were expressed
14	specifically by Mike Gibson and by Dr. Melius.
15	Mike Gibson indicated that he was
16	not comfortable with the method that was being
17	used in approaching the dose reconstructions.
18	We discussed that at some considerable length
19	at our last teleconference.
20	I'm sorry Mike isn't here because I
21	would like to pose the question to him as to
22	whether the discussions regarding that method

have made him more comfortable with where we 1 2 are and whether he agrees that these methods are acceptable. 3 His absence makes it impossible to 4 ask those questions, so perhaps I can do that 5 6 by email after this is over. The other -- the 7 validity of the model process also included --MEMBER CLAWSON: Excuse me. 8 CHAIR MUNN: Yes. 9 is 10 MEMBER CLAWSON: This Brad I hate to interrupt, but I'm calling in. 11 right in the middle of moving fuel and they've 12 13 given me about two minutes. I've called Ted and left a message. 14 15 I got forced and we've got to get a shipment 16 out of the INL here, and I apologize, but I will not be able to meet this meeting. 17 CHAIR MUNN: All right. I'm sorry. 18 19 We'll miss you, Brad, but --MEMBER CLAWSON: 20 It's no problem. I left a message on Ted's answering machine at 21 4:30 this morning, but I just wanted to make 22

1	sure that
2	CHAIR MUNN: Well, I'm glad you
3	called us. Thank you very much. Go do what
4	you have to do and stay safe.
5	MEMBER CLAWSON: Okay. Thank you.
6	Bye bye.
7	CHAIR MUNN: Thank you. So, the
8	issue revolving around the validity of the
9	model process and Monte Carlo methods were a
10	major topic of discussion. You have the I
11	hope all of you have the minutes from our last
12	discussion and have reviewed them again.
13	I'll ask the people who are on the
14	call here today, has that discussion and your
15	review of that discussion resulted in your
16	acceptance of the validity of the model
17	process and the Monte Carlo methods?
18	Are those going to be acceptable to
19	you? Gen?
20	MEMBER ROESSLER: Okay. I just got
21	off of mute. Restate what you just said.

CHAIR MUNN: I was asking about our

that were discussed at 1 concerns our 2 teleconference regarding the validity of the model process and the Monte Carlo methods that 3 were used in it. 4 I was asking whether the result of 5 those discussions was an increased comfort and 6 7 acceptance of what we have used to this point. Do you find the model process valid and the 8 Monte Carlo methods used it in valid? 9 10 MEMBER ROESSLER: Absolutely. fact, I think I brought that up at our Work 11 Group call, and I think during the call the 12 13 comments that were made by Jim Neton reminding us of some of the things that are in the 14 record confirmed that we are using the very 15 16 best scientific process. So, I'm completely comfortable with 17 that as it applies to Blockson and as it 18 19 applies to any of the work groups or any of the facilities we work with. 20 CHAIR MUNN: Dr. Melius? 21

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MELIUS:

MEMBER

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still

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1	concerns about the model.
2	CHAIR MUNN: Do you have concerns
3	about the model that we can address?
4	MEMBER MELIUS: Well, I have some -
5	- before we get updated, other than the one
6	communication on Mallinckrodt, has there been
7	any other technical update from either SC&A or
8	NIOSH?
9	MR. MAURO: Jim, this is John. I
LO	don't believe there's anything new from SC&A.
11	Everything that we have prepared has been
L2	delivered. I believe Jim's material regarding
L3	Mallinckrodt was the last piece of technical
L4	information that was delivered on the subject.
15	MR. NETON: Yes, this is Jim.
L6	That's correct from NIOSH's side.
L7	MEMBER MELIUS: Thanks. Was there
L8	any discussion or issues raised at the Board
L9	meeting after I left? I believe that this was
20	presented then. I can't recall the exact
21	sequence.

CHAIR MUNN: At the Board meeting

1	or at the teleconference?
2	MEMBER MELIUS: Board meeting also.
3	MEMBER ROESSLER: Jim, we haven't
4	had a Board meeting since then
5	MEMBER MELIUS: No.
6	MEMBER ROESSLER: have we?
7	MEMBER MELIUS: Before that.
8	MEMBER ROESSLER: I don't
9	understand your question, Jim.
10	CHAIR MUNN: There would have been
11	I don't recall any additional concerns
12	being raised at the Board meeting. Frankly, I
13	did not go back and review the Redondo Beach
14	minutes.
15	It would, of course, be included in
16	the Redondo Beach minutes, but I have not done
17	that. So, that's one of the I guess we
18	would have to ask whether you had an
19	opportunity to do that because I, frankly,
20	have not reviewed the Redondo Beach minutes.
21	MR. KATZ: Wanda? I'm sorry.
22	CHAIR MUNN: Has anyone else

1	addressed Jim's question?
2	MR. KATZ: I guess I need
3	clarification. Wanda, you're saying Redondo
4	Beach. Are you meaning Augusta?
5	CHAIR MUNN: I'm sorry. Augusta.
6	I still have Redondo Beach on the brain.
7	MR. KATZ: You know, I haven't
8	reviewed the transcript from Augusta, but as I
9	recall, there wasn't really the substantive
10	discussion about Blockson there. It was just
11	an update of where things stand and that there
12	would be another Work Group meeting.
13	But, so there was no moving forward
14	on any issues with the weather, but there was
15	really no discussion, substantive discussion
16	as I recall it.
17	CHAIR MUNN: I don't recall any
18	either, and I, frankly, don't recall any
19	discussion that would center on this topic
20	outside of the Blockson arena.
21	So, I guess the answer to your
22	question, Dr. Melius, is so far as I know, no,

1	there has not been.
2	MEMBER MELIUS: Okay. No, I'll
3	take your word for it. I just wanted to
4	double check.
5	CHAIR MUNN: I don't believe there
6	has been. The other item that was excuse
7	me. Let me start over again. The other item
8	regarding the model was simply whether as I
9	recall, the concern was whether one should
LO	even be used. I think we've put that to bed.
11	The other is whether the model is
12	an adequate model. I believe, if I understand
L3	Dr. Melius correctly, you're saying it's not
L4	an adequate model in your view.
15	MEMBER MELIUS: Correct.
L6	CHAIR MUNN: All right. Is there
L7	anything we can do to make it adequate?
18	MEMBER MELIUS: If there's no new
L9	information, I'll just have to continue to
20	review what has already been generated.
21	CHAIR MUNN: All right. If you
22	could do that

1	MEMBER MELIUS: I do have one
2	question for NIOSH. Is it NIOSH's plan moving
3	how is NIOSH going to deal with radon?
4	Sort of similar radon exposure situations at
5	other sites? Are you going to use the old
6	procedure or are you going to use this model?
7	MR. NETON: Well, I think this
8	is Jim. That would depend on the site, what
9	type of information were available. But, I
10	guess I can't speculate too much, but if we
11	had a similar situation where we knew the
12	source term and the production rates as well
13	as we did here and had no monitoring data, we
14	would approach it, I assume, similarly.
15	But, some sites we do have radon
16	monitoring data we'd use preferentially over
17	first term.
18	MEMBER MELIUS: Yes. So, you
19	wouldn't use the, sort of I call it, the
20	Florida data procedure?
21	MR. NETON: No. No. We believe

that this model addresses the full level of

uncertainty that exists in a facility such as
this. It works it eliminates the issues
related to the Florida issues related to
the building being more open and that sort of
thing and the time frame issues, as well,
which were problematic with the Florida data
if you recall.
MEMBER MELIUS: Okay. Yes. No.
Okay, that's helpful.
CHAIR MUNN: So, is there any kind
of an exchange that could take place between
now and our meeting in Albuquerque that would
bring you more comfort with respect to this or
any closer to accepting it as being adequate,
any croser to accepting it as being adequate,
Dr. Melius?
Dr. Melius?
Dr. Melius?  MEMBER MELIUS: I'll talk to some
Dr. Melius?  MEMBER MELIUS: I'll talk to some other Board members and see.
Dr. Melius?  MEMBER MELIUS: I'll talk to some other Board members and see.  CHAIR MUNN: If you would, I'd

incorporate it into my report when we begin

1	our discussion at the full Board.
2	So, if you'll relay that kind of
3	information to me, it would be very helpful.
4	Can that be done?
5	MEMBER MELIUS: Yes, I suppose so.
6	Yes.
7	CHAIR MUNN: Yes, good. I'd
8	appreciate it. That pretty much takes care of
9	my next bullet there. Do members now accept
10	as appropriate? The answer is not fully yet.
11	The final bullet that I had was the
12	one which we discussed earlier and did not
13	come to any conclusion with respect to
14	Dr. Melius' concern on the quality of the
15	data.
16	I'm sure whether there's anything
17	that can be said additionally that would be
18	assuring in that regard, but if there is, now
19	is probably the time to say it.
20	Dr. Melius, if you have any
21	specific points with respect to quality that
22	you would like to bring to us that we could

address or that might be addressed between now and our next meeting so that we can wrap this up, it would be most helpful. Do you have any

MEMBER MELIUS: I have nothing further to say.

CHAIR MUNN: No specification with respect to how we could improve your concern about the adequate quality of the data? Okay. Then we have come to the end of the points that I wanted to cover.

I want to review for us what we did the last time we addressed this before the Board. At that time, we had asked the Work Group three questions.

We had said that SC&A had identified those seven findings and we considerable discussion and follow up on those. They have all now been resolved. you -- would you accept that report? four unanimous votes, a yes, that accepted.

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Then we indicated that NIOSH had sought information in depth for all of the activities on that site, and they have —believe they have adequate data to reconstruct and bound the radiation dose. Do you accept that report? We had two yes votes and two no votes.

Then the third question that was asked was -- I guess we didn't -- the site profile has been rewritten and reviewed and revised. Do you accept the current site profile? We had two yes votes and two no votes.

It appears to me that that question still remains a valid one. Don't know whether that has changed since -- in the three months intervening or not.

We don't have our fourth member here to respond to that question, but we can reach him by email and pose the question again if that seems to be feasible.

I would like to be able to identify

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whether there is any change in the position of 1 2 the answer to that question as to whether the current site profile is acceptable. 3 So, I guess I still believe it's 4 acceptable. Dr. Melius, do you feel that that 5 6 site profile is acceptable with the exception 7 of the concerns that you've expressed already or do you still not feel that the current site 8 profile is adequate? 9 10 MEMBER MELIUS: To tell you the truth, I don't recall all the issues with the 11 site profile. I'd have to go back and look at 12 13 it. I've been focusing on the SEC issues. Would it be fair to CHAIR MUNN: 14 15 ask if I might send that question to you and 16 Mike and ask that you give it to consideration and get back to me prior to the 17 time I prepare my presentation for the Board 18 19 in Albuquerque? Is that a fair request? that do? 20 MEMBER MELIUS: 21 Yes.

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MUNN:

Good.

CHAIR

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right.

All

1	Then that's what I will do. I'll send that
2	request and ask at this juncture until I
3	get responses from those, I won't be able to
4	say much more than what we've covered before -
5	- when I make my report to the Board if I am
6	understanding what I believe our discussion
7	here has led us to, then we are essentially,
8	at this moment, still at the same point where
9	we were when we began these most recent
10	discussions.
11	That is, we have two of the Work
12	Group members who support the NIOSH
13	recommendation. We have two members of the
14	Working Group who do not support it for the
15	two reasons given in our earlier discussion
16	here.
17	Is there anyone who finds any
18	incorrect inference in those statements?
19	MEMBER ROESSLER: Wanda, I don't,
20	but I would like to make a comment.
21	CHAIR MUNN: Please do.

MEMBER ROESSLER:

In looking at

where we are on this situation, just looking at what our responsibility is as a Work Group, we were charged with evaluating the site profile and the appropriateness of the SEC petition.

It's our responsibility to bring this to the full Board so that the full Board can participate in a decision. I think it's very important at this point for the Work Group and especially you as the chair to get a concise and specific summary from Dr. Melius from Mike and/or Brad on what their are so that we come into this concerns discussion, and in fairness to the Board, be able present what Work to the Group's evaluation is.

CHAIR MUNN: It would, I know, be very helpful to be able to provide such data. It's very difficult for the rest of the Board to have a feel for how much information has been exchanged and how thorough this particular Work Group has been.

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1	If we can request such a thing, it
2	would be very helpful. I will take it as an
3	action item to very promptly place such a
4	request on email and hopefully have the kinds
5	of responses that I can present myself or that
6	I can have the dissenting members present
7	themselves at the upcoming meeting.
8	Which of those would be the most
9	effective is a question that we can resolve
10	between now and then, I think, probably
11	amongst ourselves and unofficially, but we do
12	want to have as much information available, as
13	many specifics available, for the other
14	individual advisory board groups as we
15	possibly can.
16	Is Gen's suggestion amenable?
17	MEMBER MELIUS: Is it your intent
18	to do a written report to the Board ahead of
19	time?
20	CHAIR MUNN: Not really, unless one
21	feels that that's necessary.

MEMBER MELIUS: I don't.

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That

1	would be my preference. I think I'm capable
2	of presenting my own opinions to the Board.
3	CHAIR MUNN: I'm sure. That's not
4	the question. The question is whether or not
5	we need to do that in a written format or in a
6	format before the Board at the time of the
7	presentation. That's the question in my mind.
8	Would you prefer written or would
9	you prefer a personal presentation?
10	MEMBER MELIUS: I thought you just
11	told you weren't going to do a written report
12	to the Board ahead of time?
13	CHAIR MUNN: I had not intended to.
14	MEMBER MELIUS: Okay.
15	MEMBER ROESSLER: I guess this
16	is Gen. My point is that in fairness to
17	Wanda, as she presents the Work Group report,
18	it would be she really should have
19	something either verbal or written from you so
20	that she can adequately present the
21	information in her report.

It seems rather awkward for her to

1	make the report and then have you follow with
2	your own opinion.
3	CHAIR MUNN: If we can include it
4	in one report it would be helpful.
5	MEMBER MELIUS: I'll try to
6	understand that. I because I don't think
7	Gen's Gen, I don't think you're trying to
8	tell me I can't have an opinion.
9	MEMBER ROESSLER: No, but I think
10	it catches as a chair of a work group, I
11	think it's kind of unfair to Wanda to catch
12	her by surprise or to totally assimilate what
13	you're trying to say perhaps after she's made
14	her presentation.
15	Certainly, you're have your opinion
16	before that, and I just think a summary of it
17	would be a responsible way to make this
18	report.
19	MEMBER MELIUS: I think I
20	understand it better. Let me think about it.
21	CHAIR MUNN: If I could include it
22	in a slide presentation even, it would be

helpful. We'll have an exchange of emails with regard to how to work this out best.

I don't think we'll be able to do it here, and I do think, perhaps, we need to verify some of the material that's on the O: drive before I put together my final report.

So, if we have any other item to discuss, this is the right time to bring it up. Otherwise, I will issue an email to all of the parties who are involved here with my understanding of the actions we are going to attempt to complete prior to Albuquerque so that the Board report to the Albuquerque meeting will be complete and fair.

If that meets the needs of all the people involved, then we can adjourn this meeting. If not, please tell me now. Thank you all. I appreciate your patience as we try to work through these and get it right.

I will try to have my email out to you early next week. Thank you all. Have a good weekend.

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1	MEMBER MELIUS: Thank you, Wanda,
2	and everybody.
3	MR. KATZ: Okay. Good bye.
4	CHAIR MUNN: We are adjourned.
5	Bye-bye.
6	(Whereupon, the above-entitled matter was
7	concluded at 1:18 p.m.)
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