

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL
NATIONAL INSTITUTE FOR OCCUPATIONAL
SAFETY AND HEALTH

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ADVISORY BOARD ON RADIATION AND
WORKER HEALTH

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PANTEX PLANT WORK GROUP

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WEDNESDAY
JANUARY 19, 2011

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The Work Group convened via
teleconference at 11:00 a.m., Bradley P.
Clawson, Chairman, presiding.

PRESENT:

BRADLEY P. CLAWSON, Chairman
JOSIE BEACH, Member
ROBERT W. PRESLEY, Member
PHILLIP SCHOFIELD, Member

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ALSO PRESENT:

TED KATZ, Designated Federal Official
ISAF AL-NABULSI, DOE
ROBERT BISTLINE, SC&A
RON BUCHANAN, SC&A
JOE FITZGERALD, SC&A
LAURENCE FUORTES
EMILY HOWELL, HHS
JENNY LIN, HHS
JIM NETON, DCAS
KATHY ROBERTSON-DEMERS, SC&A
MARK ROLFES, DCAS
LAVON RUTHERFORD, DCAS

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

2 (11:01 a.m.)

3 MR. KATZ: So this is the Advisory
4 Board on Radiation and Worker Health Pantex
5 Work Group, and let me take roll call
6 beginning with Board Members, and please
7 speak to your conflict of interest -- of
8 interest situation with respect to Pantex
9 when you -- when you note your attendance
10 today.

11 CHAIRMAN CLAWSON: Okay, this is
12 Brad -- this is Brad Clawson, Work Group
13 Chair for the Pantex, no conflict.

14 MEMBER BEACH: Josie Beach, no
15 conflict with Pantex.

16 MEMBER SCHOFIELD: Phil Schofield,
17 no conflict with Pantex.

18 MEMBER PRESLEY: Bob Presley, no
19 conflict.

20 MR. KATZ: Very good. Any other
21 Board Members? Okay. Moving on then to -- so,
22 Mark Griffon, are you not on the line yet?

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1 Okay. Moving on to the NIOSH-ORAU team.

2 MR. ROLFES: This is Mark Rolfes,
3 health physicist with NIOSH. I have no
4 conflict of interest.

5 MR. RUTHERFORD: LaVon Rutherford,
6 health physicist, NIOSH. No conflict with
7 Pantex.

8 MR. KATZ: Very good. SC&A team?

9 MR. FITZGERALD: Yes, this is Joe
10 Fitzgerald. I have no conflict with Pantex.

11 MS. ROBERTSON-DEMERS: This is
12 Kathy Robertson-DeMers. I have no conflict.

13 DR. BUCHANAN: This is Ron
14 Buchanan with SC&A. No conflict.

15 DR. BISTLINE: This is Bob
16 Bistline, SC&A. No conflict.

17 MR. KATZ: Thanks, SC&A. And for
18 the court reporter, that's Ron Buchanan and
19 Bob Bistline. They trampled each other a
20 little bit, but --

21 DR. NETON: Hey, Ted, this is Jim
22 Neton. I just got on, I don't know if you

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1 went through --

2 MR. KATZ: Yes, but thank you,
3 Jim. That's --

4 DR. NETON: I have no conflict
5 with Pantex.

6 MR. KATZ: -- Jim Neton, he's also
7 NIOSH. Okay, any other NIOSH or ORAU, NIOSH
8 ORAU or SC&A folks? Okay, moving on. Other,
9 whether it's NIOSH, HHS, or federal officials
10 or contractors to the feds.

11 MS. LIN: This is Jenny with OGC.

12 MS. HOWELL: Emily Howell, HHS
13 OGC. MR. KATZ: Do we have anyone

14 attending from DOE?

15 DR. AL-NABULSI: Isaf Al-Nabulsi.

16 MR. KATZ: Okay. And last but not
17 least, do we have any members of the public,
18 whether they're petitioners or other, that
19 would like to identify themselves as
20 listening to the call--

21 DR. FUORTES: Thank you, this is
22 Laurence Fuortes in Iowa City. Sarah Ray will

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1 try and get on in about an hour.

2 MR. KATZ: Thank you, Laurence,
3 welcome.

4 DR. FUORTES: Thank you.

5 MR. KATZ: All right, that does
6 for roll call. Then let me just ask everyone
7 on the call except when you're addressing the
8 group please mute your phone. If you don't
9 have a mute button, pressing * and 6 will
10 mute your phone. Press * and 6 again and it
11 will unmute your phone. And also please do
12 not at any point put the call on hold but
13 hang up and dial back in if you need to leave
14 the -- leave the call for some period. And,
15 Brad, it is -- it's your agenda, maybe if you
16 could just give people just sort of a
17 thousand foot agenda idea before we get
18 started, that'll -- that'll help the
19 petitioners and anyone else who doesn't have
20 Joe's memo just get a sense of what and when.

21 CHAIRMAN CLAWSON: Okay, well,
22 first of all this is the -- I want to make

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1 sure that everybody got a copy of -- I sent
2 this out back in December. I know that Mark
3 Rolfes and -- sent out that they had received
4 it like I asked, but I just wanted to make
5 sure that everybody has this paper,
6 especially NIOSH and so forth.

7 Jim, you've got it and
8 everything, all right?

9 DR. NETON: Are you talking to me,
10 Brad?

11 CHAIRMAN CLAWSON: Yes, I was. I
12 just wanted to make sure that you got the
13 paper and so forth that we were working to --

14 DR. NETON: I definitely have it.

15 CHAIRMAN CLAWSON: Okay, that
16 sounds good. One of the things we're going to
17 -- we're going to start out is make sure what
18 our expectations are as our last Work Group
19 meeting. We had several issues that we've
20 given to NIOSH, and we were -- this is
21 basically to figure out kind of where we're
22 at on it.

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1 One of the big, big ones was
2 internal dosimetry that we had -- we'd had
3 some questions on and were waiting for a
4 response back on that. You know, how I mapped
5 this, where everybody's got this paper, I
6 wanted to make sure if there was any issues
7 with it, Mark or Jim, that, that you saw.

8 Any -- was there any problems, or
9 any questions on any of it of what we were
10 asking?

11 MR. ROLFES: Well, to be honest,
12 Brad, I haven't looked through this in its
13 entirety. This is Mark Rolfes. I didn't know
14 that this was the basis for our Working Group
15 meeting today honestly, so.

16 CHAIRMAN CLAWSON: Oh, okay, well
17 I, I guess that's -- I guess that's why we
18 sent that out so that we could make sure that
19 we were all on the same page of it. Okay, so
20 --

21 DR. NETON: Brad? Brad, this is
22 Jim. You know, I looked through it, and one

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1 thing that, you know, I understand where Joe
2 was coming from with the emphasis on the
3 internal dosimetry, but I guess what I was --
4 what I was missing there was, you know, we
5 had done a formal response at the last May
6 Working Group meeting to SC&A's review, and I
7 don't think we've ever received written
8 comments from them on those, on those
9 responses unless this is in lieu of that, I
10 don't know.

11 CHAIRMAN CLAWSON: Well, actually
12 in the last Work Group meeting Stu Hinnefeld
13 mentioned to us that -- we told him that we
14 needed more clarification on that, it wasn't
15 very good, and he promised that he would get
16 it back to us. And so maybe that's where the
17 misunderstanding is at if -- because we could
18 not understand how they were doing what they
19 were doing, and Stu promised that he was
20 going to come back with us, and maybe that's
21 why you haven't got formal responses because
22 we haven't gotten anything, and, you know,

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1 reviewing the transcripts and all this is
2 what came out of it. And I guess this is part
3 of the reason why we're having this Work
4 Group call like this is to make sure that
5 everybody's on board with what their response
6 was and what their responsibility was to
7 respond to it.

8 MR. FITZGERALD: Let -- this is
9 Joe. Can I interject at this point?

10 CHAIRMAN CLAWSON: Sure.

11 MR. FITZGERALD: Yes. What we did
12 we got a, you know, we got the written
13 response, Jim, and, you know, we didn't have
14 a length of time to come up with a detailed
15 response, but really it wouldn't have
16 mattered from a timing standpoint because the
17 response was more qualitative -- is that the
18 best way to put it, meaning it reiterated, I
19 think, some of the premises, the assumptions
20 that were laid out in the ER and our original
21 issues from the matrix raised some questions
22 about the lack of substantiation of those

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1 very fundamental assumptions and the need for
2 more justification beyond looking to rad
3 controls and looking to some of the what I
4 would call more of the programmatic bases for
5 making those assumptions.

6 And we had a discussion during
7 the May Work Group meeting where we made it
8 kind of clear that this -- this had not yet
9 gotten to a substantive technical exchange
10 because we frankly didn't have what I would
11 consider an evaluative basis for those
12 assumptions meaning that something that could
13 be truly evaluated on a -- from a technical
14 standpoint.

15 You know, the -- and that concern
16 was, I think, pretty well articulated during
17 the meeting, and there was agreement at the
18 table, and that's one reason I think it's
19 helpful for everybody to go back through the
20 transcripts. I think there was general
21 agreement at the table from everybody there
22 that, yes, in order to have a meaningful

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1 technical exchange we needed a clearer and, I
2 say evaluative, meaning something that truly
3 could be evaluated on a technical basis,
4 something that goes back to, you know, actual
5 records, data, whatever, and that was the --
6 and that was the agreement on I think the
7 bigger issues on internal anyway was that
8 further justification and that was the word
9 that was used at the table and agreed to,
10 would be forthcoming on these questions of
11 back extrapolation, some of the assumptions
12 on the state of contamination, you know, the
13 same issues that I think we've been pointing
14 at now for several years.

15 And to move the ball forward,
16 okay, from where it is now it was pretty
17 clear at the Work Group meeting that we truly
18 needed that more defined bases for the
19 assumptions that NIOSH was hinging its SEC
20 recommendation and ER on, or otherwise I
21 think we would continue talking past each
22 other, at least be sort of in one of these

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1 subjective analyses that could not be brought
2 to resolution and so the -- so I think the
3 important take home message from May was that
4 the Work Group needed that clear and more
5 defined bases. I think Mark Griffon who is
6 participating he even pointed to you know,
7 can you even highlight the specific
8 interviews that are the strongest part of
9 your argument, something that the Work Group
10 would be able to review, evaluate, come to
11 some kind of a conclusion. Where it was
12 left before that and where it is left in the
13 ER is not -- is not sufficient, and I think
14 that was the conclusion. So, you know, that
15 is not something that -- an SC&A response
16 would have helped. I mean, we gave, I think,
17 our response at the table which was that
18 there wasn't sufficient information or
19 substantiation that would enable us to
20 evaluate and provide feedback to this Work
21 Group.

22 And that's still our conclusion,

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1 and we needed more information back from
2 NIOSH, and that's -- and that was agreed to.
3 So we're still in that mode at this point.

4 DR. NETON: Well, I understand
5 what you're saying. I don't exactly remember
6 it being that hard and fast, but I guess I'd
7 have to go back and read the transcripts, but
8 we made a lot of other points in those
9 responses that went above and beyond the
10 internal dosimetry issue, and it's sort of
11 unusual -- it's an unusual practice for us to
12 put a response out and then get nothing in
13 writing back rather than just do over. That's
14 sort of what I'm hearing.

15 MR. FITZGERALD: No, I don't
16 disagree that it is unusual, but I think the
17 ER position for Pantex is unusual, and I
18 think that's where the Work Group, based on
19 the discussions we had, made it clear that
20 that wasn't adequate at this point in time,
21 or at that point in time. So I think this is
22 an unusual place, and I don't find, and I

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1 don't think the Work Group found, the basis
2 that was provided in toto, I mean, in the ER
3 and in the response in May, to be sufficient
4 to enable any kind of conclusion to be
5 reached or any evaluation to be done. So I
6 think that is unusual.

7 DR. NETON: I remember, you know,
8 SC&A got that review document a couple days
9 -- response like a couple days before, and I
10 don't really recall it being, you know, a
11 done deal, it was more like well we just got
12 this, here's our sort of initial response
13 based on reviewing it. Anyway, I fully agree
14 with you that the internal dosimetry issue is
15 sort of the overarching issue at this point,
16 though, I'll definitely --

17 MR. FITZGERALD: Well, I think
18 this is a little alarming, at least from our
19 standpoint, because the Work Group findings,
20 the conclusions, and the commitments made at
21 the table by NIOSH in May were unequivocal,
22 that it was an acknowledgment that further

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1 justification was warranted and that further
2 justification would be provided that was --
3 up to and including Stu who was present as
4 well, so I don't think there was any
5 ambiguity, and the transcripts are very clear
6 so I, you know, that's kind of one reason I
7 wanted to go back in this -- summary to set
8 the stage because I think this kind of --
9 this kind of typifies the situation that I
10 think Pantex has been under now for some time
11 that we're not -- the Work Group isn't --

12 MR. KATZ: Joe, I'm sorry, Joe,
13 Joe, I hate to interrupt, but somebody has
14 joined the call who is not on mute, and
15 there's a lot -- I don't know if anyone else
16 is hearing this, but there's a lot of either
17 beating or static coming from someone's line
18 who's joined this call recently. Please,
19 everyone, mute your phones or use *6 if you
20 don't have a mute button. That'll mute your
21 phone so that we can have a clear hearing of
22 the proceedings. Thank you.

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1 MR. FITZGERALD: At any rate I
2 think, again, if you read the transcripts you
3 will see that it is very clear what the
4 pathway was defined back in May. We've been
5 working on issues of data adequacy and
6 completeness as we do at most sites and are
7 almost completed with that as well as the
8 neutron issue. But for the internal issue
9 which I think is the real sticking point as
10 you note, that, you know, that is something
11 that still resides with NIOSH.

12 We're not able to do anything
13 with that without any further substantiation
14 or justification back from NIOSH on what it's
15 provided, so we made that clear at the table,
16 we could not go further than that and there,
17 you know, there isn't anything at this point,
18 so I think that's something the Work Group is
19 going to have to wrestle with because, you
20 know, if we're eight months further along and
21 really have no further information on the
22 internal, I think the Board has to deal with

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1 that. We can't.

2 DR. NETON: Right, well, okay, I
3 think we can move forward with this internal
4 issue, I mean, that seems to be the central
5 subject, and I agree with that. Part of my
6 problem or situation is that I thought there
7 was some other than additional meeting that
8 was held at the Pantex facility in the
9 intervening time period, and you know, I --

10 CHAIRMAN CLAWSON: That would have
11 been -- I think -- believe you were referring
12 to our tour that we had.

13 DR. NETON: Right, and I don't
14 know if that shed any additional light on
15 this issue or not -- that's neither here nor
16 there. I guess what we can do is Mark -- and
17 I know there's been a couple email
18 transmittals by Mark to Brad and the Working
19 Group as to what needs done since the May
20 meeting, and maybe Mark can speak to that and
21 work from there.

22 MR. ROLFES: Yes, I certainly

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1 will, Jim, I tried to chime in a little bit
2 earlier, and --

3 DR. NETON: Sorry, I didn't mean
4 to cut you off.

5 MR. ROLFES: Wanted to make sure
6 everyone was able to get their say in before
7 I chimed in here. I just wanted to follow up
8 on our responses following the Working Group
9 meeting that we had last year. I'd sent out
10 an email saying that we had planned to
11 consolidate the bioassay results for the
12 Pantex employees into one centralized
13 location under the Advisory Board's document
14 review folder for Pantex to add information
15 regarding the potential for historical
16 internal exposures.

17 And also to consolidate worker
18 and subject matter expert interviews, and
19 then the third thing we had also agreed to
20 provide a reference. We haven't provided that
21 third reference. I also did ask for any
22 individual spots on any of the topics which I

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1 may not have addressed in that email.

2 Let's see -- as -- let's see --
3 on July 9th of last year I sent out an email
4 to let the Advisory Board Working Group
5 Members know that we had placed all of the
6 bioassay data that we had in electronic files
7 and as well as the subject matter expert
8 interviews out onto the Advisory Board's
9 review folder, and looking back at the number
10 of bioassay files, we put 102 PDFs of
11 bioassay data out on the O: drive for the
12 Advisory Board's review and also put a little
13 under 50 documented interviews with subject
14 matter experts and also worker outreach
15 information, information that we had
16 collected over several years of having worker
17 outreaches for both the Special Exposure
18 Cohort evaluation process as well as from the
19 Site Profile. And, let's see, I believe we
20 had also put several references out regarding
21 the types of air monitors that were used
22 historically at Pantex.

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1 So I guess we've put out what we
2 felt provided the additional justification to
3 show, you know, historical exposure potential
4 and also some of the historical, you know,
5 monitoring methods, et cetera. And I don't
6 know if you've had an opportunity to look at
7 the documentation that we put out, but I know
8 there's been concerns about, you know, for
9 example, the adequacy of internal dosimetry
10 records and our current basis on -- in our
11 Site Profile that we have for the Pantex
12 plant, is relying upon more recent bioassay
13 data to basically estimate intakes
14 historically, and we've provided
15 justification as to why we feel that's a
16 sound basis and have also looked at some of
17 the historical air monitoring data as well to
18 compare to our intakes, and we've essentially
19 validated our bioassay-derived intakes as
20 being rather claimant-favorable compared to
21 the actual air monitoring data that we've
22 collected from the site.

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1 This was something that we did
2 during the SEC evaluation process back in
3 October of 2008, and I know there's always
4 uncertainties in our evaluations, and I
5 believe that we've used those uncertainties
6 to the benefit of the doubt of the claimants
7 for whose dose we're reconstructing.

8 If there's, I understand, you
9 know, it's difficult for us to discuss
10 specific concerns without having, you know, a
11 specific review of of our work product, I
12 guess, is where I'm coming from, and, I mean,
13 I can address any questions that there might
14 be if you would like to go through some of
15 these issues still, and if we don't have a
16 response right now, we'll certainly be able
17 to get back to you in writing with a more
18 detailed response.

19 But I don't know if anybody has
20 anything else to add before we go through
21 these topics in more detail.

22 CHAIRMAN CLAWSON: Mark, this is

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1 Brad. So in your Evaluation Report you want
2 to take 1992 data and back extrapolate it to
3 the `40s, and you know as well as I do that
4 air monitoring data is really pretty lacking,
5 and as we saw at our tour down there, where
6 they place the air monitoring data back in
7 those days the only thing they were going to
8 pick up anything was catastrophic, and that's
9 what they did, and so -- and you know, there
10 was, this was part of a thing we was supposed
11 to come out of this was how are you going to
12 be able to do this because as we showed on
13 there, there was many weapons that came into
14 production and left production that you don't
15 have any data on, period.

16 MR. ROLFES: Okay, let me clarify
17 a little bit. Pantex wasn't operational as a
18 covered DOE facility during the 1940s. It
19 didn't become operational until 1951. And it
20 was approximately 1957, `58 time period when
21 fissile materials began to be handled at
22 Pantex, and that also coincided with the

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1 construction of the Gravel Gerties on site,
2 and that's also when air monitoring began
3 being conducted within those cells.

4 We're not using air monitoring
5 data to back extrapolate. We're using the
6 urinalysis data that was collected as a
7 result of a large incident that occurred in
8 late 18 -- or, 1989. There was a large
9 population of workers that were involved in
10 this specific program and had been exposed to
11 some uranium oxide contamination, and we're -
12 - we have looked at that data as a method for
13 bounding earlier internal doses.

14 Because of the number of
15 disassemblies and assemblies that took place,
16 it was during disassembly where the greatest
17 potential for intake occurred, and we're
18 using data collected from essentially a very
19 large incident, as you heard, as was
20 described to us during the tour, this was a
21 really significant incident that occurred in
22 1989 and resulted in a shutdown of the

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1 operations at the site.

2 So what we've done is taken all
3 that bioassay data that we have collected and
4 used that to essentially assign uranium
5 intakes back to 1980, and subsequent to that
6 we also looked at the number of disassemblies
7 which were occurring in the 1970s and 1980s
8 and felt that the approach that we have used
9 for the later time period based on uranium
10 bioassay was claimant-favorable in comparison
11 to the observed air concentrations at the
12 site.

13 And to make the comparison we
14 actually looked at about 4500 alpha air
15 samples that were collected during the 1970s
16 and '80s, and our intakes that we're
17 currently assigning in our Site Profile for
18 Pantex are roughly 1000 times the intakes
19 that would be assigned based on the air
20 monitoring data.

21 MR. FITZGERALD: Mark, this is
22 Joe. Can I stop you right there because I

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1 think this is perhaps a sample issue of the
2 overall concern on the '89 back extrapolation
3 as we said at the table back in May. Yes, you
4 have a lot of sample and, you know, in terms
5 of the n value, that's something that is
6 attractive because it gives you a number of -
7 - the data is large.

8 But the basis for back
9 extrapolation has to hinge on whether or not
10 operations can be normalized, and your
11 sampling is in fact equivalent or can be
12 adjusted. And all we were asking for was a
13 basis beyond the fact that you had this data
14 in '89 and that based on -- this is where we
15 have problems, based on your reading of
16 program management operational controls and
17 what not for the plant you felt there -- and
18 just number of disassemblies, you felt you
19 could back extrapolate.

20 But it was all subjective.
21 There's nothing hard in terms of a
22 understanding of the operations over that

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1 time frame where it could be normalized so
2 that you could in fact do that legitimately,
3 and that, you know, you're talking about the
4 same kind of sampling regime even though the
5 sampling regime in the early years would have
6 fallen before the major upgrade that took
7 place at Pantex in `90, `91, where we know
8 they overhauled the entire health physics
9 program including the dosimetry program.

10 So the Work Group, and this is
11 just one example of many, back in May, said
12 that, you know, we know what you're
13 proposing, but you have not provided -- you
14 haven't let the other shoe drop which is the
15 basis for arguing that you can back
16 extrapolate over the earlier years because
17 you can normalize against the usual changes
18 that take place in operations programs and
19 monitoring over that time frame.

20 And without repeating all the
21 discussion that took place last spring, that
22 was where the Work Group came out, asking for

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1 something that would substantiate that aspect
2 of the basis that has to be provided that
3 isn't clear in the ER, hasn't been made clear
4 in your responses back in May which is about
5 the only thing we can evaluate.

6 I mean I can look at the number
7 of samples that were in '89, but the rest of
8 it is -- I have to -- I have to take on faith
9 that the, you know, that, you know, that that
10 would be representative of the earlier years.

11 DR. NETON: Joe, this is Jim. I
12 guess I'm a little bit confused as to what
13 you're saying. Are you saying that you don't
14 believe the air sampling values that were
15 used for comparison are adequate, they are
16 not representative of the --

17 MR. FITZGERALD: I don't think
18 that they're necessarily bounding until one
19 can show that the samples that were taken
20 earlier -- you know, there's missing samples.
21 The reason we're using '89 is there's no data
22 --

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1 DR. NETON: I understand that, but
2 there were air samples that Mark was talking
3 about, he went back in the earlier period,
4 and I heard a number, something like 4000,
5 where calculated air concentration values and
6 then determined that if we assign intake
7 based on what was measured in the air the
8 values we're using from the '89 incident are
9 substantially larger than what was actually
10 measured in the air in these cells. You know,
11 I --

12 MR. FITZGERALD: I have a number
13 of problems. One, I think it's pretty well
14 established from interviews that the sampling
15 that was done in the cells was not
16 necessarily representative. That was
17 something that came out pretty strongly --

18 DR. NETON: Okay, that's what I've
19 not seen in writing anywhere from SC&A. We
20 need to have an evaluation is that approach
21 invalid and why, and, you know, if it's
22 interview material, that's great, but I'd

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1 like some technical justification as to why
2 these air samples are invalid.

3 MR. FITZGERALD: Well, let's go
4 back; 1989, you're taking 1989 samples from
5 an incident --

6 DR. NETON: Incident?

7 MR. FITZGERALD: And -- right. And
8 the claim is that those are going to be more
9 conservative based on air samples that were
10 taken many years before because the air
11 samples that were taken years before seemed
12 to be relatively lower than what's
13 represented by the measurements in '89,
14 right?

15 DR. NETON: Right.

16 MR. FITZGERALD: Okay, I'm saying
17 that those air samples that were taken in the
18 cells have been largely undercut by a number
19 of interviews of workers working in those
20 cells as well as the rad techs who are still
21 around, by the way, where the monitors were
22 positioned in ways that would have missed

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1 much of the contamination, so it certainly --
2 a lot of questions regarding the
3 representativeness of those air samples to
4 begin with.

5 And then going back to the 1989
6 set -- sample set, the justification as Mark
7 has laid out, you know, this was the period
8 of quote, you know, high disassembly,
9 therefore this would be subjectively bounding
10 because of the number of disassemblies, and I
11 think one thing we pointed out in May was
12 that starting in the early `80s there was a
13 large series of disassemblies that started
14 taking place because the earlier generation
15 of weapons being recycled and going out of
16 the stockpile. So even though, yes,
17 because of the end of the Cold War you
18 started seeing a spike beginning in `89, just
19 basing it on a lot of disassemblies quote
20 unquote in `89 I thought was pretty
21 subjective. So, you know, what we're coming
22 back down to is if one is going to back

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1 extrapolate, I think there's got to be some
2 kind of discussion, substantiation of how you
3 would normalize against sort of the usual
4 operational changes that take place during
5 that -- we've done this at other SEC sites.
6 How do you normalize across the time span so
7 that you know, you know, the '89 sample is
8 representative enough and that if you're, you
9 know, if you're comparing it against any
10 other samples that those samples in fact are
11 either representative or seen as relatively
12 accurate so you can make that conclusion.

13 DR. NETON: Right. Well, one thing
14 that SC&A didn't comment on that was in the
15 Site Profile was that there are bioassay
16 samples that exist back through, back to
17 1959. There aren't a lot, but --

18 MR. FITZGERALD: -- not conflate,
19 the Site Profile points out the status -- of
20 the data, our data accuracy piece that will
21 be forthcoming in the next four or five weeks
22 once we get through DOE we'll go through this

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1 in more detail. But we're hinging on the dose
2 estimation approach which is in the ER which
3 came after our Site Profile review that says,
4 okay, given the circumstance and what data
5 does exist, here's how we're going to apply
6 that --

7 DR. NETON: Right, but what I'm
8 saying is the -- the Site Profile actually
9 commented that there were bioassay samples
10 that existed prior to 1989, and if you look
11 at those samples they are in the -- in the
12 right range or similar range as those that we
13 would use for 1989.

14 In fact there's about 115 or so
15 bioassay samples that were incident based
16 prior to `89, and they, again, they go all
17 the way back to `59. I think those values
18 need to be looked at and compared as well.

19 MR. FITZGERALD: Well, that may
20 be, but, Jim -- that would be, that would be
21 a very legitimate start for further
22 justification, but the ER, as it reads, and

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1 that's the only thing we can go by, makes
2 it's case for back extrapolation on a very
3 subjective base, that's the best way I can
4 put it --

5 DR. NETON: I -- in your writeup,
6 Joe, though, that you said that the matrix
7 was largely based on your review of the Site
8 Profile. You know, and I can read from you
9 where it says that. I mean --

10 MR. FITZGERALD: That was the
11 starting point --

12 DR. NETON: Right, and that --

13 MR. FITZGERALD: That was the
14 starting point but -- we're not -- we're not
15 back three years ago, we're -- we have now
16 gone so far as to have a review of the ER and
17 have a Work Group meeting, and it was made
18 clear that the one of the central issues is
19 the need to have more -- more specificity on
20 the bases for these back extrapolation
21 claims.

22 MR. ROLFES: Joe, this is
Mark, once again, and I don't feel that we've

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1 produced a subjective evaluation of our
2 approach. I feel that we've actually done a
3 pretty decent job of evaluating the air
4 sampling data and comparing the intakes from
5 air sampling data to those that we've
6 defaulted to based upon our urinalysis
7 coworker study. And that's my concern, you
8 know, if there's some specific issues with
9 the approach that we've adopted there that's
10 probably the best place to focus your efforts
11 on looking.

12 MR. FITZGERALD: Well, but, Mark,
13 you know, we have covered this ground, okay,
14 we have covered this ground in May, and it
15 was made clear at the table, explicitly
16 clear, it's on the transcripts, what these
17 concerns meant, and there was ample
18 opportunity for NIOSH to respond that in fact
19 there was further justification, maybe it
20 wasn't explicit in the ER but there was
21 further justification available and certainly
22 it was there.

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1 No, I think we went through this
2 discussion, and I'm frankly, you know, I
3 don't see any value in repeating the
4 discussion we had at the Work Group meeting.
5 We spent a whole day on this, and it was
6 agreed at the table with the Work Group with
7 NIOSH present that, yes, there was a need for
8 clearer justification on some of these points
9 that wasn't available in the ER and was not
10 available in the response that the Work Group
11 received in April right before the meeting.

12 And there may in fact be some
13 bioassay samples that could be shown to be
14 within the range of the '89, for example,
15 data, but we don't have that analysis. That
16 hasn't been provided.

17 All we have is what's in the ER
18 and what's in the response, and I'll remind
19 you the response we got, what the Work Group
20 got, basically almost on every issue with
21 internal points to a preamble that
22 reiterates, you know, the overriding

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1 assumptions that guides this ER which is, you
2 know, a very comprehensive rad-control
3 program that would have enabled, you know, a
4 adequate, very adequate event-driven bioassay
5 program with very little chronic
6 contamination and, you know, so forth and so
7 on, very absolute, and we're saying okay, if
8 that's the case, then I think it's incumbent
9 on NIOSH to demonstrate that beyond how good
10 the program might have been and what the
11 level of surety could have been, but actually
12 substantially that these conditions existed.
13 And I, you know, I don't see anything yet
14 that does that.

15 MR. ROLFES: Well, I don't
16 honestly know what else we can do besides
17 take all the scientific data we've had and
18 collected and analyze that and compare them.
19 I -- that's why I'm hoping that we would
20 receive something in writing where we can
21 focus our efforts because I think we've done
22 really a pretty good job. We've been pretty

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1 active with the Pantex Site. I know I've been
2 down there several times in the past probably
3 five years collecting information, collecting
4 records, speaking with workers, and, you
5 know, we've given every record that we've
6 collected and generated to the Advisory Board
7 and used all those in our consideration.

8 Many of the issues, we've
9 certainly listened to the concerns that we
10 had from workers, and many of the issues that
11 we heard from the work force and the Advisory
12 Board just recently heard on the tour, those
13 have been incorporated into our Site Profile
14 revisions, and, you know, we've done our
15 homework, and so I'm sort of at a loss as to
16 what additional information we need to
17 consider or what additional validations we
18 should complete.

19 CHAIRMAN CLAWSON: Mark, this is
20 Brad --Jim, let me jump in here because,
21 Mark, you brought up a very good point to us
22 about the tour, and I hope that you remember

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1 this. Do you remember where the placement of
2 the heads was for the cells?

3 MR. ROLFES: Yes, correct.

4 CHAIRMAN CLAWSON: Where?

5 MR. ROLFES: There, within the
6 cells there is a air sampler at about 6, 7
7 feet high on the wall.

8 CHAIRMAN CLAWSON: No, they're out
9 in the hallway.

10 MR. ROLFES: That's not true.

11 CHAIRMAN CLAWSON: In the early
12 years, yes, they were.

13 MR. ROLFES: In the bay --

14 CHAIRMAN CLAWSON: -- this is one
15 of the questions because one of the things
16 that came out of this is this was also right
17 where the supply -- the draft fan was going
18 out, and as the RadCon told us down there,
19 yes, we've learned through the years of our
20 placement of these, of our air monitoring
21 data that this was insufficient, that this
22 did catch the Cell 1 incident.

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1 So, you know, the thing, too, is
2 we have been asking for this robust health
3 physics program that Pantex had. With all
4 three of the RadCon, three and for a time
5 there there was only two during all of this
6 work period. The -- this to me is just --
7 it's -- to me it's incredible to tell you the
8 truth because they even admitted it
9 themselves when Cell 1 happened they didn't
10 even know what they were dealing with.

11 They didn't even have an idea.
12 They had to call somebody else in because
13 they didn't know what or how to even handle
14 it. And then when it gets to the point when
15 in 1989 where they actually have to shut the
16 program down because they're not abiding to
17 the new regulations and they've increased --
18 I -- some -- they have increased so high on
19 their RadCon because they were not able to
20 monitor.

21 They were doing the best job they
22 could, but they even admitted themselves that

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1 they didn't know what they were dealing with,
2 nor did they have the manpower.

3 DR. NETON: Right. Hey, Brad, this
4 is Jim. I, you know, I would point out that
5 in 1989 that the threshold for monitoring
6 really went way down to where you had to be
7 able to demonstrate that you could see 100
8 millirem internal dose which is a pretty low
9 bar for measuring inhalation of actinide type
10 materials.

11 MR. ROLFES: Jim, this is Mark.
12 And what Brad's referring to was a 1989
13 tritium release, and air monitoring data
14 isn't our basis for --

15 DR. NETON: Let me go back to
16 where I was going to mention with the -- this
17 justification issue. I know -- depleted
18 uranium seems to be -- one of the key issues
19 here, and I've gone back recently just in
20 preparation for this meeting and looked at
21 the bioassay data that we do have prior to
22 '89, and in fact the numbers are very low, a

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1 matter of fact a majority of them I believe
2 are nondetectable measurements of depleted
3 uranium, and these were incident based driven
4 samples.

5 That in my mind confirms that the
6 potential exposure appeared to be fairly low.
7 Now maybe we need to go back, and maybe this
8 is a little late in the game, but -- and look
9 at those samples, and, Mark, do we have any
10 additional samples in claimant bioassay,
11 claimants records or not?

12 MR. ROLFES: Yes, well, if I, what
13 we have done with all the documentation that
14 we've collected and added into our Site
15 Research Database, we've SPEDELite linked, if
16 an individual's name popped up, we SPEDELite
17 link that to the individual's claim, and so
18 if there's a document in the Site Research
19 Database --

20 DR. NETON: Well, there aren't a
21 lot of data out there, but, again, these are
22 these incident-driven samples that -- they're

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1 not all nondetectable, there are a few
2 positive ones sprinkled about here and there,
3 but having worked at a uranium facility in
4 the past, they're not alarmingly high value,
5 they're not like we think you couldn't bound
6 these types of exposure scenarios, which are
7 sort of consistent with what Mark is seeing
8 in the air sampling program, which is
9 somewhat consistent that was seen in 1989.

10 I think -- I think what's not
11 happened here is to put together a
12 comprehensive picture of this --

13 CHAIRMAN CLAWSON: Well, Jim,
14 that's a good point because this is one of
15 the questions that we had, too, was what is
16 an event, what is there, is there a limit
17 that considers it an event driven, or what
18 triggers the bioassay program? And there's
19 nothing, and it's not even -- it's not even
20 clear of who -- how you determine what an
21 event was.

22 And in talking with the people

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1 down there and talking with the RadCon, I
2 asked them I says so what established an
3 event that you would have to bioassay? Their
4 comment was if we couldn't get it cleaned up
5 before the end of shift. And the comment
6 about relatively clean coming in.

7 When we went into the weighing
8 and so forth area I asked them because the
9 surveys aren't being done by RadCon, they're
10 being done by operators and so forth. And I
11 asked them what kind of levels that they had,
12 and he says when they come in or when they
13 leave, and I says well what do you mean, and
14 he says there's always a little bit of
15 leaching to them.

16 You always wipe the pits down
17 before you ever handle them and work with
18 them. Because it's always going to be a
19 little bit of leaching.

20 DR. NETON: Right.

21 CHAIRMAN CLAWSON: Well, this
22 whole thing --

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1 DR. NETON: The thing to remember,
2 Brad, is when you take bioassay samples
3 they're long term integrators. So if there
4 are samples of workers that were taken and
5 I've seen these, `49, `63, `65, `67, `73, and
6 they're nondetectable and those workers have
7 been consistently working in those areas and
8 there's nothing coming out in their urine and
9 we establish a threshold like we do typically
10 to cap the output at the detection limit for
11 a chronic exposure scenario, that has a way
12 of bounding those people's exposures using
13 that technique.

14 CHAIRMAN CLAWSON: So what you're
15 telling me is that you've got substantial
16 bioassay for the workforce --

17 DR. NETON: I'm not saying
18 substantial, but what I'm saying is if you
19 take a bioassay sample on a person in `65,
20 that is an integrator of all the exposure to
21 uranium that occurred before that time. And,
22 you know, if you can establish what the

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1 maximum concentration the person could have
2 breathed in on a chronic basis and not been
3 above the detection limit, you can bound that
4 person's intake. We do this very regularly at
5 a number of sites.

6 CHAIRMAN CLAWSON: Well, you know,
7 that's one of the things that has kind of
8 come out was -- that we've been -- that I've
9 been looking at is is the premise that the
10 highest exposed people were the ones that did
11 the bioassay. And that's not correct.

12 DR. NETON: Well, it seems if
13 they're incident driven, you would expect
14 that they would be among the higher exposed
15 people, otherwise they weren't incident
16 driven which -- I don't know what they were.
17 I mean, I thought we --

18 CHAIRMAN CLAWSON: That's kind of
19 what we've been looking at ourselves.

20 DR. NETON: Right. I thought it
21 was generally agreed that it was an incident
22 driven program meaning that they only sampled

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1 when there were off normal conditions, that
2 is some type of contamination was either
3 observed or measured or that sort of thing.

4 CHAIRMAN CLAWSON: And what we
5 kind of also found out was that when they
6 sampled, it was kind of a broader spectrum of
7 people, too, because they wanted to have
8 someone to compare to, but, you know, this is
9 kind of our -- this is my hangup and my
10 problem with this is for one thing there
11 isn't that much data out there. There's so
12 many different events there is no procedures
13 to tell us what was your limits to be able to
14 -- for an event. What did you guys consider
15 as an event. There's nothing clear.

16 MR. ROLFES: Brad, this is Mark.
17 And dating back to 1959 they had standard
18 operating procedures. The report number was
19 321. It was in the 321 series, and they do
20 have essentially what's considered a minor
21 event versus a major event document to --
22 back as early as that, and one of the bases

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1 when sealed pits came on site, one of the
2 occurrences or incidents, you know, was the
3 dropping of a component, and so that was one
4 of the early things that was considered to be
5 an incident.

6 CHAIRMAN CLAWSON: A dropping.

7 MR. ROLFES: Yes.

8 CHAIRMAN CLAWSON: That was an
9 event. So it wasn't a release; it was a
10 dropping.

11 MR. ROLFES: Well, the concern was
12 that if something was dropped it could have,
13 you know, cracked or broken or released
14 contamination, and so in those events or in
15 those earlier time periods that was
16 considered to be an event.

17 MS. ROBERTSON-DEMERS: Can I say
18 something here because I don't want this
19 misconception that early bioassay data were
20 always associated with incidents. In fact we
21 looked at a lot of those -- of the incident
22 reports and how they correlated to how the

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1 bioassay correlated to the incidents, and in
2 fact most of the bioassay were not taken as a
3 result of an incident.

4 MR. ROLFES: Okay. Did you produce
5 a report to share with us on this --

6 MS. ROBERTSON-DEMERS: It is on
7 its way.

8 MR. ROLFES: Okay.

9 MR. KATZ: For the court reporter,
10 and I guess we all could just be careful
11 about this, that was Kathy DeMers from SC&A.

12 CHAIRMAN CLAWSON: Well, you know,
13 I kind of have a deja vu because this is the
14 same thing we went over back in the Work
15 Group meeting, so I guess, Joe --

16 DR. NETON: Brad, this is Jim.
17 Could I ask Kathy a question? What is this
18 report that we're going to be receiving?

19 MS. ROBERTSON-DEMERS: It is the
20 data adequacy and completeness report. It's
21 going in for review to Pantex today. Once we
22 get it back we'll ship it out.

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1 DR. NETON: And that, as you said,
2 incorporates a review of the early bioassay
3 samples?

4 MS. ROBERTSON-DEMERS: Yes.

5 DR. NETON: The ones that are out
6 there on the O: drive now?

7 MS. ROBERTSON-DEMERS: Right.

8 DR. NETON: Well that would be --
9 that's very important for us to know, I mean
10 --

11 MR. ROLFES: Yes, this is what
12 we're going to need, I think, to move forward
13 on something, so.

14 MR. FITZGERALD: Well I object to
15 that to some extent. You know, there were
16 specific deliverables that came out of the
17 Work Group. I went ahead and, you know, put
18 them down at the very end of this status
19 thing I sent to the Work Group in December.
20 And we had four deliverables, and -- one of
21 which was the data adequacy and completeness
22 which you know, we've been working on since

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1 last fall but been held up by Pantex a couple
2 times. But that about ready to pop. Sent the
3 neutron paper, and these were all taskings
4 from the Work Group. Sent the neutron paper
5 in in December after we've got further
6 information on the Mound neutron approach.

7 And we're going back to do data
8 capture at the site once they make
9 arrangements to get us back on site so we can
10 get a little bit more additional information
11 on source terms. That was something the Work
12 Group was interested in. And we also have
13 site interview summaries which are going
14 through classification review and hopefully,
15 Kathy, are those almost available?

16 MS. ROBERTSON-DEMERS: The status
17 of our interview summaries is -- and that
18 DOE-RL was to ship them to Pantex for review,
19 and they were to complete that review by
20 January 14th. This morning I found out that
21 Pantex never received those interviews for
22 review, so we are in the process of trying to

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1 find out what the holdup is with Richland.

2 MR. FITZGERALD: So they're with
3 DOE, but those summaries are something that,
4 you know, Jim, we were saying as far as some
5 of this feedback, those interview summaries
6 are something that would be useful as well.
7 Those are the four deliverables that came out
8 of the Work Group meeting as far as taskings,
9 and on the NIOSH side, the -- there were
10 basically two. One was the additional
11 justification on the internal dose
12 reconstruction approach, and the other was
13 more from a Site Profile standpoint loose
14 ends that came out of the -- this was the
15 Hans Behling discussion on external, and I
16 think it was agreed there were some loose
17 ends on that issue, but they looked like they
18 were tracking toward a Site Profile, and it's
19 all in the transcripts.

20 So as far as work products, paper
21 products, they're either delivered or in DOE
22 screening at this point. But as far as what

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1 we can look at, we frankly need to look at
2 the internal dose approach, and that hasn't
3 changed.

4 MR. ROLFES: Joe, this is Mark. I
5 did want to let you know that we did in fact
6 receive the review of our neutron dose
7 reconstruction methodology, and we're working
8 on preparing responses to that.

9 MR. FITZGERALD: Right. Now going
10 back to internal, I know it's a tough one. We
11 had the same discussion as far as what the
12 need was and what the -- the problem was back
13 in May, and I don't -- I guess I'm at odds as
14 to what -- what more can we say at this point
15 to put you in a position to provide the
16 additional justification that we can then
17 evaluate. You know, I -- looking at the
18 response that we got back in May to the Work
19 Group, there's not, there's nothing here in
20 most cases that we can really deal with other
21 than some programmatic information as far as
22 the way the program is managed, the level of

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1 contamination and things like that.

2 DR. NETON: Well, it seems to me
3 that there's two things here. One is that
4 there seems -- there's some debate concerning
5 the value of the air sampling program as it
6 existed in the early years. I mean, I've
7 heard Mark say that these were at basically
8 breathing zone heights in the cells, and I've
9 also heard Brad say that workers were saying
10 that they were in the hallway. There's a big
11 disconnect there. Somehow we need to get to
12 the bottom of that and determine, you know,
13 why there is that disconnect and which is
14 what it is, you know, what is the real value
15 of these samples.

16 MR. ROLFES: Jim, this is Mark.
17 And there's two different sampling locations,
18 and one is within the cell, and the second is
19 a series of bays where there are air samplers
20 set up just outside of the bay on the wall.

21 DR. NETON: Right. So it seems to
22 me that we need to somehow communicate better

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1 what we're actually using and why we do
2 believe that these are representative of the
3 work activities that were ongoing in the
4 early years. I mean, you know, if those air
5 samples are truly invalid, then I fully agree
6 there's a problem here with this -- one of
7 the pieces of this analysis.

8 MR. ROLFES: And to further
9 elaborate on what Brad was related --
10 relaying earlier on the Cell 1 incident that
11 occurred, that was a tritium release, and I
12 just wanted to discuss that. The tritium
13 monitoring program, they had routinely
14 sampled workers for tritium exposures since
15 the early 1970s and then had also selectively
16 analyzed some samples prior to that in the
17 '60s for tritium. And so the workers
18 that were involved in this incident would
19 have been in a tritium sampling program in
20 the first place, and we wouldn't be using the
21 air monitoring data from that release in 1989
22 to be estimating their intakes. We'd use

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1 their actual urinalysis results.

2 DR. NETON: Okay, but this '89
3 incident we're talking about earlier was the
4 uranium incident.

5 MR. ROLFES: Well, yes, there was
6 also an incident in 1989 involving uranium as
7 well, and as a result of that incident that
8 occurred there were some workers that had
9 basically exited the area that had some
10 visible contamination on them. Some of it
11 contained uranium. And as a result of that
12 incident they shut down the operation that
13 was ongoing there and essentially shut down
14 that operation completely until they could
15 survey the area and document how much
16 contamination was on the workers, how much
17 contamination was in the work area, et
18 cetera.

19 And then following that they also
20 went back and found approximately 300 workers
21 that had been involved in working on that
22 specific program over the past several years

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1 and took Helgeson lung counts of those
2 individuals, and they believed that there was
3 a positive bias to the lung burdens that they
4 measured so they -- that prompted a second
5 check by using urinalyses which were analyzed
6 by -- Y-12. And so it was that large
7 population of bioassay data which would have
8 been collected from anybody who had been
9 working on that program and potentially could
10 have been chronically exposed over the past
11 several years.

12 DR. NETON: Right, I got that
13 part. Mark, this air sampler validation, is
14 that written up anywhere? I mean, have we
15 provided that?

16 MR. ROLFES: We, as part of our
17 Evaluation Report we did an analysis of the
18 4500 air sample results that we analyzed, and
19 I can -- it was actually part of the
20 Evaluation Report which we produced for
21 Pantex.

22 DR. NETON: I had forgotten that

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1 part, and somehow I've not heard anybody
2 criticize this other than the fact that no
3 one's actually come out and said these were
4 invalid --

5 CHAIRMAN CLAWSON: No, that's not
6 true, Jim, because I questioned, I said where
7 was the air sampling, where were the air
8 sampler heads, and we were not able to take
9 care of that until we got down to Pantex and
10 actually saw the cells and how the cells were
11 set up. And if you remember right, Mark, as
12 Scott was telling us, there wasn't anything
13 in the cells, it was all in the hallways
14 because all of those doors opened up into
15 that one hallway, and their theory was that
16 any of the contamination that would come out
17 of any of those cells would be going towards
18 a large exhaust fans that was now a brick
19 wall there.

20 MR. RUTHERFORD: Brad, this is
21 LaVon, and I do have to disagree. There was -
22 - I know of at least one cell that we went

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1 into that there was clearly a sample head up
2 there.

3 CHAIRMAN CLAWSON: Okay now which
4 -- which cell though?

5 MR. RUTHERFORD: I can't remember
6 the numbers or which one, you know, exactly,
7 but I clearly remember that there being a
8 sampler, a sample head in the cell and one in
9 the hall, in the bay.

10 CHAIRMAN CLAWSON: Right, okay,
11 and --

12 MR. RUTHERFORD: Well, wait a
13 minute, are these -- are these older cells or
14 were these the --

15 CHAIRMAN CLAWSON: These are the
16 newer cells, LaVon --

17 MR. RUTHERFORD: The newer cells
18 would not be representative anyway.

19 CHAIRMAN CLAWSON: Right, and this
20 is the point that I'm trying to bring out is
21 that you have to in the later years actually
22 if you would have listened to what Scott said

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1 they went through basically three generations
2 of air sampling data, and in the later years,
3 as you saw the cell, this is what prompted
4 them to be able to put them where that they
5 did do that. Another thing if you might
6 remember, LaVon, is that the air is actually
7 recirculated inside of this cell, it never
8 pulls out of the newer cells.

9 This was different in the earlier
10 years because in that hallway that we were
11 standing in that we were looking inside to
12 the cells the ones that had the big pits in
13 the -- the big holes in the floors that had
14 the big rad symbols all over them and stuff,
15 they had a fan in the hallway. It looked like
16 a big doorway with new brick right there, and
17 that's where the fan was that, and it pulled
18 air out and -- out of the building. The air
19 sampler heads were in the hallway because
20 they never had to go into the cells to change
21 any of the papers.

22 So you are correct that later

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1 years they have, but in the earlier years
2 they were all in the hall because that was
3 one of my questions at the very beginning of
4 this was where was the positioning of these
5 heads, where -- was it a good representative
6 sample. You're using this air sampling data,
7 but you can't even tell me where the heads
8 are at. And this is what part of the
9 importance of this tour was.

10 MS. ROBERTSON-DEMERS: This is
11 Kathy DeMers. Can I ask a clarification about
12 some of the data in the ER? Can you guys tell
13 me what you defined as cell air?

14 MR. ROLFES: Kathy, I'm not sure
15 of the question. This is Mark Rolfes.

16 MS. ROBERTSON-DEMERS: Okay, in
17 the ER, when you go back to the table in the
18 back where it lists the availability of
19 surveillance data, air sampling data and
20 other data, you have, I believe, high volume
21 cell air, and lapel. What are you defining as
22 cell air? Is that the RAMS?

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1 MR. ROLFES: Well, it was called
2 the RAMS in the more recent time period, but,
3 yes, it was cell air being basically
4 collected. They had, let's see here, dig it
5 up more formal. Let's see, they had a
6 continuous air sampler within the cells, and
7 I believe it operated essentially for the
8 entire week, and they'd be changed out
9 weekly.

10 MS. ROBERTSON-DEMERS: Okay, so
11 that -- what that is is what we saw, what --
12 what, say, LaVon is talking about what we saw
13 on the wall of the cell?

14 MR. ROLFES: Well, we didn't go
15 into an operational cell.

16 MS. ROBERTSON-DEMERS: No, we
17 didn't, but we went into other cells.

18 MR. ROLFES: Correct.

19 MS. ROBERTSON-DEMERS: And he was
20 talking about seeing a monitoring system on
21 the wall in the cell.

22 MR. ROLFES: There -- I tried to

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1 clarify this earlier. There's been air
2 samplers within the cells since the cells
3 were basically put into operation, and also
4 in addition to that there were the air
5 samplers outside the bays as well.

6 MS. ROBERTSON-DEMERS: Okay, and
7 this is opposed to putting a general air
8 sample right next to the individual or a
9 lapel sample on them.

10 MR. ROLFES: Yes, lapel sampling
11 was done in the '90s, not routinely done in
12 the earlier time periods. There were some
13 occurrences when there were some incidents
14 where they had set up some not necessarily --
15 they were more -- they were still, I guess,
16 general area air monitors, but, yes, lapel
17 sampling wasn't done until much more
18 recently.

19 MS. ROBERTSON-DEMERS:
20 Okay, and a majority of the air sampling
21 you're talking about is cell air, is in that
22 category?

MR. ROLFES: That would be 45 --

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1 the 4500 samples that we've analyzed.

2 MS. ROBERTSON-DEMERS: Right.

3 MR. ROLFES: That's correct.

4 MS. ROBERTSON-DEMERS: Okay. I
5 actually kind of on a different note had two
6 other questions for you from earlier
7 statements you made. You said that there's 50
8 interviews out there under the Advisory Board
9 folder.

10 MR. ROLFES: Yes, interviews and
11 worker outreach minutes.

12 MS. ROBERTSON-DEMERS: Okay. Which
13 specific interviews did you draw from in your
14 response to a that was issued, I believe, in
15 February of last year?

16 MR. ROLFES: Well, the entire
17 interview process we've considered, you know,
18 every interview that we've conducted and
19 every worker outreach meeting that we've
20 held, we've considered -- you know, I've
21 provided every piece of information that
22 we've gathered because this isn't something

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1 that you know, we've seen, you know, the
2 Evaluation Report as being the culmination of
3 all of our work. However you can't take that
4 independently of all the other information
5 that we've collected and used to develop the
6 Site Profile, and the Site Profile alone
7 can't be used independent by itself without
8 also considering the worker's own exposure
9 monitoring data and bioassay data.

10 MS. ROBERTSON-DEMERS: So if I
11 want to go back and you're talking about
12 interviews with workers in your response, I'm
13 going to need to review all 50?

14 MR. ROLFES: Yes, essentially. I
15 mean you can't really take things piecemeal,
16 you got to consider everything as a whole to
17 make a good understanding of operations and
18 exposure potentials.

19 MS. ROBERTSON-DEMERS: Okay, and
20 one other question. You said that you went
21 back and you were able to look at the number
22 of disassemblies per year?

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1 MR. ROLFES: We looked, you know,
2 historically the disassemblies certainly
3 ramped up. There weren't really too many done
4 in the earlier years, and then in the more
5 recent time period they've certainly ramped
6 up, and surprisingly enough if you look at
7 our analysis that we've completed, the actual
8 alpha air concentrations within the cells
9 appears to be correlated to the number of
10 disassemblies which took place in the '70s
11 versus the '80s. So if you take a look at the
12 alpha air concentrations in the 1980s they're
13 slightly higher than the air concentrations
14 from the 1970s.

15 MS. ROBERTSON-DEMERS: Okay, so
16 you have the numbers of disassemblies by
17 year?

18 MR. ROLFES: Yes, it's published.
19 It's published by the Department of Energy
20 for the more recent time period, up until a
21 certain date. I don't recall what it is,
22 though.

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1 MS. ROBERTSON-DEMERS: Can you
2 either provide us with the specific reference
3 of that information, or provide us with some
4 compilation of what you --

5 MR. ROLFES: I believe you've
6 already accessed that information during your
7 last -- I believe Joe had indicated that you
8 reviewed the same documentation that I have
9 at -- I don't recall, was it at OSTI,
10 perhaps?

11 MS. ROBERTSON-DEMERS: Okay, well
12 I am aware of a document that we reviewed at
13 OSTI. Really can't get into the contents of
14 it, but that would indicate that there were
15 other peaks.

16 MR. ROLFES: Okay, well also keep
17 in mind, you know, this document would report
18 for facilities other than just the Pantex
19 plant. It would also account for other
20 facilities that were doing similar work.

21 MS. ROBERTSON-DEMERS: So we don't
22 have specific numbers for Pantex?

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1 MR. ROLFES: No, it was just a
2 general, just a --

3 MS. ROBERTSON-DEMERS: The number,
4 the specific number of disassemblies and
5 let's throw in there retrofit modifications
6 and surveillance units and JTAs, we don't
7 have that data for Pantex by year.

8 MR. ROLFES: It's not -- it's not
9 really needed for, you know, just a
10 generalized analysis of the air sampling data
11 though. We're just using the number of
12 diassessmblies, we're just showing a trend in
13 the air monitoring data, that's all.

14 MS. ROBERTSON-DEMERS: Well, that
15 seems to be one of your, your key arguments
16 for back extrapolation is that the number of
17 disassmeblies went up. And that's why I'm
18 kind of asking for this data.

19 MR. ROLFES: Okay, well we can
20 look into it if you want specific numbers of
21 diassemblies by year in order to, you know,
22 feel better about the analysis that we've

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1 done, we can certainly request that from the
2 Department of Energy.

3 MS. ROBERTSON-DEMERS: And what --
4 what we would look be looking for is actually
5 for Pantex, not for Iowa, not for Medina, not
6 for Clarksville. And also while I have got a
7 captive audience I wanted to let you guys
8 know that I just had a conversation with
9 Pantex before this call, and our tour
10 notebooks, all but Phil's and mine, have been
11 shipped out as of last Friday or Monday of
12 this week. And that's helpful in all of this
13 analysis and discussion that we're talking
14 about.

15 MR. ROLFES: Okay.

16 MR. FITZGERALD: Brad, this is
17 Joe. What I would recommend at this point, I
18 mean clearly what we're trying to do is find
19 a way to stage a meaningful Work Group
20 discussion for this -- for the second Work
21 Group meeting and to have enough information
22 hard information that would enable the Work

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1 Group to reach some closure on some of these
2 questions and come up with a recommendation
3 for the full Board.

4 It seems like we're gravitating
5 to, you know, I went ahead and based on the
6 transcripts from the last meeting and some of
7 the discussions, wrote down what I thought
8 were -- and I call them threshold questions,
9 but ones that the Work Group clearly has to
10 come to some closure on, ones that we've kind
11 of talked about.

12 And some of these -- some of the,
13 you know, pass forwards that Jim Neton
14 mentioned for depleted uranium and Kathy and
15 Mark were just talking about regarding, you
16 know, disassemblies which is sort of
17 operational status and even discussion that I
18 think Jim had with you, Brad, on air
19 sampling, I mean, these all come down to
20 these, I guess, essentially, let's see, four
21 questions. The first one has two parts, but
22 four basic questions.

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1 Is there any way we can just
2 reach agreement that for purposes of the
3 actual Work Group meeting, face to face
4 meeting, that NIOSH as we laid out back in
5 May could come back with -- this goes back to
6 our discussion at Santa Fe, Jim, a
7 quantitative, you know, quantitative
8 response, something that sort of goes to
9 source term evaluation but sort of stays on
10 the quantitative side in terms of providing a
11 basis for the approach.

12 And the first one is, you know,
13 to substantiate with, you know, whether it's
14 air samples or whatever, you know, the --
15 where one is back extrapolating, you know,
16 1990s or '89 data -- making use of that data,
17 what gives NIOSH confidence that that
18 represents an upper bound and -- from a
19 quantitative basis, you know, whatever you
20 got.

21 And that has two parts but really
22 gets down to representativeness without

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1 relying on, you know, sort of an opinion
2 about the radiological control practices
3 because I think that's dangerous ground
4 sometimes. And what -- where the confidence
5 for normalizing operations which gets to
6 things like disassemblies and the condition
7 of the facilities, changes in monitoring
8 practices, just basically normalizing
9 operations, that would be number one.

10 Number two gets to the issue, I
11 think, that Jim and Brad talked about which
12 is, you know, the confidence on the air
13 sampling itself and the placement of
14 monitoring, what have you, and I agree, I
15 think one has to get to some facts as to the
16 earlier days, not in the current regime but
17 in the earlier days was there an issue
18 revolving around the placement and
19 representativeness of the air samples
20 themselves.

21 Because if they're not
22 representative, I agree with Jim, it really

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1 undercuts the back extrapolation as a whole.
2 The third thing is, you know, and we had this
3 discussion at Santa Fe about exposure
4 potential, and it sort of crosses the ground,
5 you know, where in fact the exposure
6 potential can be demonstrated and for those
7 that were present is there a quantitative
8 basis for saying that they can be neglected,
9 or negligible or not. And we had some issues
10 revolving around contamination of pits.

11 And I think again some
12 assumptions were made about that. And the
13 final thing is what we're hoping to deliver
14 shortly which is the completeness and
15 adequacy of the internal and external dose
16 records themselves, and that's something that
17 I think we need for the actual Work Group
18 meeting as well, so just to bring the
19 internal discussion to the, or move it
20 forward and get some closure on it, I think
21 those four elements, if we can provide a
22 quantitative, you know, fact-based response

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1 to bring to the table first three I think --
2 well we would share a little bit on the on
3 the third one as far as exposure potential
4 but certainly the first two would be NIOSH
5 the fourth would be ours, and certainly on
6 the exposure potential we're still
7 investigating onsite help tests of data
8 capture that would help bring that to
9 closure.

10 But I think that's the path
11 forward, if we can agree those four questions
12 need to be answered and need to be answered
13 using a quantitative approach without
14 reliance on you know, assumptions on program
15 status and how well the program was managed,
16 that kind of thing. That would help, that
17 would help get us there.

18 DR. NETON: Joe, this is Jim. I
19 wrote down before you spoke what I thought
20 was the path forward and I am remarkably in
21 agreement here.

22 MR. FITZGERALD: Yes, well, you

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1 know, I had thought about this over the
2 holidays I hate to confess that but I think
3 those are the tracks and I don't, you know, I
4 don't want to presume that there isn't a way
5 using the data that we happen to have,
6 there's not a lot of data but there is data
7 and bring it back and it would be something
8 that we could evaluate and you certainly
9 could evaluate the neutron paper, the data
10 completeness paper and I think then we're
11 talking about some ability to close on this,
12 that we haven't had before.

13 DR. NETON: Yes, to me, me it
14 hinges upon the justification the air
15 sampling program, the robustness of it, tied
16 in with the bioassay that we do have and in
17 light of the data adequacy that you've done
18 on which I guess apparently on that bioassay
19 data that already there we'd like to see that
20 be able to pull that in at the same time
21 rather than you know, have to go back and
22 relook at it.

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1 MR. FITZGERALD: No, certainly
2 agree with that. I think for purposes of an
3 actual Work Group meeting in the near term we
4 want to get that in your hands within weeks,
5 it just has to go through DOE clearance so
6 that should be fairly forthcoming but I think
7 going back to where we left it in May it
8 would be very useful to have a quantitative
9 approach just kind of dispelling this
10 question that, you know, sort of lingering
11 questions on back extrapolation which is
12 used, you know, across the board pretty much
13 on all these nuclides you know, in fact it
14 may be that it will -- one can justify an
15 upper bound if you look at some of this data
16 and that would be useful just to for Work
17 Groups just to you know, get beyond that, we
18 seem to be stuck and I think that's the way
19 to get past it. Does that sound reasonable,
20 Brad?

21 CHAIRMAN CLAWSON: Yes, I guess
22 just so we make sure that everybody's on

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1 board with what we're requesting and apply,
2 you know, because I'm going to be brutally
3 honest, Joe, I thought this was kind of what
4 we had gone over in the last Work Group
5 meeting I kind of, it's kind of like we're of
6 the same position and I guess I just want to
7 make sure that and again you know, Jim you
8 brought up something very good too that we
9 need to -- every one of these air sampling
10 data heads should have had an ID number. If
11 you're using these air sampling datas then
12 there's going to be a placement for it and I
13 realize that in the later years and I'm not
14 worried about it, I'm worried about the pre-
15 '90 of where these placement heads were at
16 and I've got my feeling of before where they
17 were at and so forth so we need to make sure
18 that that this air sampling data and we
19 brought this up numerous times was
20 sufficient, now we've got to see the
21 generations of samples and how they've
22 evolved and all the marvelous things that

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1 they've got in all of these new cells and so
2 forth like that, because they've learned from
3 the past that the issues that they did have
4 with their sampling program and so I, you
5 know, that's one thing and I know that Joe's
6 covered this but I want to make sure that the
7 if we're going to be using those air sampling
8 data that it is validated that it was
9 representative.

10 DR. NETON: I 100 percent agree
11 with you Brad.

12 CHAIRMAN CLAWSON: Okay.

13 MR. FITZGERALD: Well then what I
14 would say is that we can work off these
15 threshold questions as the action items and
16 Brad can circulate that and I would only add
17 maybe some emphasis on the need for a
18 quantitative approach which would you know, I
19 think be consistent what we just talked
20 about, you know, if it's number of
21 disassemblies, if it's actually placement of
22 air samples and validity or reliability of

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1 air samples, I think that's that's what we're
2 talking about.

3 MR. KATZ: Joe and Jim, this is
4 Ted. Why don't you two trade notes on your,
5 on the action items so that they're fully and
6 completely worded and then get out to the
7 Work Group a final list that's definitive and
8 unambiguous, just to be certain we don't have
9 any disconnect about what's meant about any
10 of the items.

11 DR. NETON: Could I suggest that
12 maybe Mark take on that for our side and I'll
13 be happy to look at it before it goes out.

14 MR. KATZ: Yes, I'm sorry, I
15 didn't, Jim, I didn't mean anyone
16 particularly whether it's you or Mark but
17 just in other words Joe and someone from DCAS
18 just work on putting it together.

19 DR. NETON: Sounds good, I think I
20 elect Mark to that task.

21 MR. FITZGERALD: Yes, and I was
22 going to say my certainly my starting point

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1 is in that status piece I would only provide
2 a little bit more emphasis on the
3 quantitateness of the justification. And I
4 think it's important given the given the lag
5 that, you know, we're experiencing with the
6 proceedings to, you know, this is the Work
7 Group's call but as far as the aiming point
8 which is one reason for the call that would
9 be something that would be helpful to
10 understand also I know you know, looking at
11 this, you're going to you know, figure out
12 resource-wise where this puts us but I would
13 think certainly we would like to be able to
14 discuss this sometime in April or somewhere
15 in that time frame.

16 MR. KATZ: So--this is Ted, again--
17 -Joe, and that's something I guess we don't
18 need to deal with online but afterwards I
19 mean integral to doing this will be at least
20 one then meeting, secure meeting for the
21 documentation that you discussed that needs
22 to be looked at and so on--

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1 MR. FITZGERALD: Here's a secure
2 meeting but as part of the resource loading
3 of compiling these questions and figuring out
4 what one has to do to answer the questions,
5 and some of these questions also involve us.
6 That would be something to coordinate with
7 you and Brad and just figure out then you
8 know, is there a window that we should get
9 back together as a Work Group and that's--

10 MR. KATZ: This is Ted. I
11 understand what you're saying there, what I,
12 what I my point I was trying to make is that
13 it seems like that secure meeting needs to be
14 scheduled and that's an element in the timing
15 of this face to face Work Group meeting.

16 MR. FITZGERALD: Yes, and I think
17 they'll track together and I actually won't
18 be too inconsistent because I think we have a
19 little, well, I don't want to say that
20 either, because it's, you know, let's see how
21 quickly the DOE can transfer stuff but I'm
22 hopeful that as soon as we can, you know,

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1 consolidate the records we can certainly go
2 to Germantown with Mark.

3 Okay so we will trade you know,
4 versions of this thing and you certainly have
5 our starting proposition from this this memo.
6 Mark.

7 MR. ROLFES: All right, yes, I
8 just wanted to make sure that these are the
9 four issues that we need to address and we'll
10 sort out exactly what the details are and
11 move forward from there. That's, is that
12 correct?

13 MR. FITZGERALD: Yes, right, and I
14 I think the fourth one clearly, as Kathy
15 noted has been completed and just has to go
16 through clearance you will have that
17 available for your review as well.

18 MR. KATZ: I'm sorry, this is Ted
19 again. I just want to be clear because there
20 are four that you and Jim spoke of but then
21 you also mentioned that I mean you've
22 delivered the neutron report, that also gets

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1 knocked or not?

2 MR. FITZGERALD: Yes, these are
3 the four items that are listed under internal
4 only. We have we haven't gotten to the
5 external or neutron pieces of the Pantex
6 discussion.

7 MR. KATZ: Okay and you're not in
8 something for the neutron one to also be
9 addressed at that face to face?

10 MR. FITZGERALD: No, we would be,
11 we would address it, I'm just saying that
12 we've been focusing on internal for the last
13 hour because I think that's the, that's the
14 area where clearly we needed to agree what
15 needed to be done.

16 MR. KATZ: No, I understand.

17 MR. FITZGERALD: Yes, neutron I
18 think is we have a pretty good path on that,
19 I you know, we can get into that now but that
20 one I think both sides understand where
21 that's headed. We certainly have some
22 questions for clarification, some issues, but

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1 NIOSH as Mark indicated is visibly looking at
2 that, responding to it, so I don't think
3 that's a question of organization. I think
4 the internal one is troublesome because we
5 we're having some communication issues
6 obviously.

7 MR. KATZ: No, I understand, Joe,
8 I just wanted to make certain we weren't
9 banking on that being ready to be put to bed
10 at this next--

11 MR. FITZGERALD: Oh, I think these
12 should be available for exposure at the next
13 Work Group meeting. Assuming that NIOSH has
14 had a chance to review it and develop the
15 response and we have the chance to look at
16 that response before the meeting. I would you
17 know, I would hope that we can you know,
18 pretty much dispatch that, as we have with
19 Mound, along the same lines. There's some
20 questions, some issues of clarification but
21 that's on, to me, that's on a different track
22 than some of the questions we have for

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1 internal.

2 MR. KATZ: Okay, thank you.

3 MR. FITZGERALD: So, yes, we would
4 hope to have that one the table and hopefully
5 for Work Group closure depending on how
6 things go could be NIOSH response.

7 CHAIRMAN CLAWSON: Now, Jim,
8 you've--or, I'm sorry, Joe--you've sent out
9 the neutron paper to NIOSH, correct?

10 MR. FITZGERALD: That's correct.

11 CHAIRMAN CLAWSON: Okay, so
12 they're going to, they're going be working on
13 that because I was just looking through the
14 paperwork and listening to what you guys were
15 saying and that, will you, we're just waiting
16 for something --

17 MR. FITZGERALD: Well, yes, I mean
18 certainly there's two major pieces of paper,
19 that was the first on neutron, the second
20 one's going to be on data completeness for
21 external and internal. And both of those will
22 be available for discussion at next Work

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1 Group meeting.

2 CHAIRMAN CLAWSON: Okay. Well, I
3 guess before my phone goes dead let me plug
4 into another one. I guess my -- we've got a
5 path forward on where we're going here and I,
6 as Ted has said we've -- I just want to make
7 sure, how can I politely, that we're all on
8 the same page is what's being requested from
9 each other so there's no misunderstanding and
10 you and Mark are going to exchange papers on
11 -- you're going to exchange what each one's
12 responsibility is, is this correct? What
13 we're looking for?

14 MR. FITZGERALD: Well, we're gonna
15 reiterate what was agreed to in last May and
16 put it in writing and be very explicit about
17 the nature of the response that would be most
18 helpful, some of which we discussed today,
19 that would be most helpful to to the ten some
20 of these assumptions for example, back
21 extrapolation on whatever data's available
22 that would show that that would be a

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1 conservative approach and a bounding one.

2 And, you know, where we have
3 issues like placement of representatives of
4 air sampling, you know, I think both we and
5 NIOSH need to do further homework to try to
6 one way or another resolve the question if
7 there's a you know, if there's a disagreement
8 then by all means we're going to have to try
9 and resolve that but you know, I think right
10 now the ER is saying one thing and we're
11 getting feedback from workers from the
12 earlier era suggesting something else.

13 CHAIRMAN CLAWSON: Right, well,
14 and okay, I -- and now, we had some questions
15 on the burning ground, and I'm trying to
16 remember, we do we have any air sampling data
17 for the burial ground--or, burning grounds?

18 MR. ROLFES: There--this is Mark,
19 and there is some limited alpha air
20 concentration monitoring results for the
21 burning grounds. There's also some bioassay
22 data for some of the individuals that were

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1 there as well.

2 CHAIRMAN CLAWSON: Okay, because--

3 MR. ROLFES: Not--it's not much, I
4 want to make sure we're--

5 CHAIRMAN CLAWSON: Well, I
6 understand that and when we were after the
7 burning grounds because this got into the
8 placement of the heads and so forth, that was
9 actually I believe on the boundary of the
10 site so I want to make sure because that's a
11 great distance and so that's wanted to make
12 sure that we made sure we knew where the
13 placement of that was too because this is a
14 critical thing, you know, we've learned a lot
15 of things over the years and Pantex is a
16 prime example of this, because if you look at
17 the first generatiосn themselves to what the
18 new generation of cells are they're totally
19 different and as Scott said down there,
20 they've made a lot of improvements through
21 the years and they've learned a lot.

22 And so I just I want to make sure

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1 that we don't confuse the new cells with the
2 old cells. But I guess Joe, I guess reading
3 through on your paper I guess my question is
4 is do we have anything more to go over?

5 MR. FITZGERALD: No, that was my
6 original concern back in May that you know,
7 we would need something more definitive,
8 more quantitative to provide a recommendation
9 to the Work Group and I think if we can agree
10 on these explicit questions that threshold
11 questions that need to be answered and using
12 quantitative means then you know, I think we
13 can reach resolution, one way or the other,
14 let the chips fall where they may and may
15 turn out there's enough to give the Work
16 Group confidence to make a recommendation
17 that no, you know, there's no SEC issue but I
18 don't think the Work Group is there right
19 now.

20 So, no, there's nothing more I
21 don't think that we can discuss on the
22 internal until we have this additional

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1 justification.

2 CHAIRMAN CLAWSON: Okay. Did we
3 want to discuss anything with the external
4 dose, or?

5 MR. FITZGERALD: Yes, let's just,
6 again, a high level of, we had we had Hans
7 Behling on the phone if you may recall last
8 year and there were a number of questions
9 that came out of the Site Profile but it was
10 his opinion that the Work Group tended to
11 agree with him that none of these did not
12 seem insurmountable as far as being able to
13 come up with adjustments or what have you and
14 the agreement was that NIOSH would simply,
15 you know, pursue the issues as they're
16 described and justified in the Site Profile
17 to come to some kind of closure to bring back
18 to the Work Group, basically indicating how
19 they would be addressed. Ron, I don't know,
20 do you have anything more to offer on that?

21 DR. BUCHANAN: No, as far as the
22 external dose, like you say Hans worked

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1 mostly with that on the low energy issue, 60
2 keV is low and as far as I can tell from the
3 transcripts and the past papers is if that
4 was to be treated as SEC issue it would be
5 taken off -- I mean as a Site Profile it
6 would be taken off the SEC issue slate if we
7 can show it's been corrected.

8 MR. FITZGERALD: This, and this
9 had more to do with how the calibration and
10 processing was handled with different vendors
11 and I think there was some response to NIOSH
12 on that that explained how that was done and
13 skin contamination, how that was addressed in
14 terms of methodology. So we went through all
15 that, and certainly Hans agreed as well that
16 this was tilting toward a Site Profile issue
17 and that's how we left it and that NIOSH
18 would basically close out some of the
19 questions or at least provide some of those
20 clarifications to the Work Group you know,
21 how they would be addressed either through
22 OTIBs, existing OTIBs or whatever. More of a

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1 housekeeping question or issue.

2 CHAIRMAN CLAWSON: Well, yes
3 because Joe one of the ones that was
4 bothering me on it, this is mainly from the
5 petitioners, the validation of the highest
6 exposed worker being badged because earlier
7 years they all weren't badged, and there was
8 some issue on that of you know, if they were
9 or if they weren't and how they determined
10 you know, they had a lot of different
11 bioassay, or dosimetry but I sure didn't see
12 how the highest exposed workers were the only
13 ones that were badged. Matter of fact the
14 guards are actually out of their dosimetry
15 program but that's later years, so. Okay, so-
16 -

17 MR. FITZGERALD: I, you know, I
18 would defer to Mark but I think we did have
19 that discussion last year.

20 CHAIRMAN CLAWSON: Right. I guess
21 that, Mark, that was just one of the
22 questions because it is tilting towards the

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1 Site Profile issue but that to me was one of
2 the questions, the mechanics express that or
3 prove that, then that to me was an issue.

4 MR. ROLFES: Okay I can take a
5 look back in the Evaluation Report to see
6 what we did to address that, if we want to
7 carry on with something else I can come back
8 to this.

9 CHAIRMAN CLAWSON: Yes. Okay,
10 well--

11 MR. ROLFES: In our Site Profile
12 also we've also got the doses received by
13 year for employees and if an individual was
14 unmonitored and was a rad worker doing hands-
15 on work and had a potential for exposure then
16 we would, we could assign a coworker external
17 dose to that individual.

18 CHAIRMAN CLAWSON: Well one of the
19 things that came out and this was from the
20 petitioners and so forth like that in the
21 earlier years there really wasn't a rhyme or
22 reason to who had badges and who didn't, it

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1 was you know, just kind of take a spot check,
2 is what I remember them expressing to me
3 because there was numerous workers, you know,
4 the, and the badge was not even really -- a
5 lot of it was left on their coat on a table
6 someplace, there wasn't a real badge program.

7 And this is something that I've
8 found interesting and I, you know, it's an
9 issue that we need to kind of put to bed on
10 this, figure out how we're going to do it
11 because I know that you guys have stated that
12 this is the highest exposed, according to
13 Pantex the highest exposed people were the
14 ones that were badged, that -- there was a
15 lot of issues with how the badges were
16 because you only have badges in certain areas
17 but you went out to the burning grounds you
18 didn't have any badge there and so forth so
19 this is kind of I just wanted to try to
20 figure out how they determined who was going
21 to be badged, who wasn't going to be badged,
22 and if it was actually carried out.

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1 MR. FITZGERALD: The individuals
2 that would have had the highest potential for
3 exposure would have been those that were
4 doing hands on routine work in the cells with
5 the cell materials and/or the individuals in
6 the earlier years who were doing radiography
7 operations. And it was those first few years
8 of operation that the individuals who were
9 doing the radiography operations they were
10 the ones who had the highest potential for
11 exposure very early on.

12 And, then subsequent to that were
13 those who were routinely handling the
14 materials--

15 CHAIRMAN CLAWSON: Not all the
16 people that were handling the materials were
17 badged.

18 MEMBER BEACH: This is Josie, can
19 I interject also? We also heard from several
20 of the guards and they were in the cells they
21 were also in the hallways and I don't believe
22 they were badged either.

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1 CHAIRMAN CLAWSON: Well Josie if
2 you remember right, too, they were the ones
3 that received all of the pits they actually
4 had to go into the trucks and had to do a
5 serial number check and a seal check before
6 because they were actually the ones that
7 would receive the materials.

8 MEMBER BEACH: That is, well
9 that's why I brought that up--

10 CHAIRMAN CLAWSON: Okay, I'm
11 sorry. MEMBER BEACH: They
12 should have been considered highly exposed
13 and I don't believe they are.

14 CHAIRMAN CLAWSON: Right and this
15 was one of our questions that came out on
16 this, was there's some gaps there, so.

17 DR. BUCHANAN: Brad, this is Ron.

18 CHAIRMAN CLAWSON: Right.

19 DR. BUCHANAN: In the data
20 accuracy and completeness paper we just
21 completed, in that it does shed some light on
22 your question when was people badged

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1 significantly and so it does show that, you
2 know, there was spot badging to begin with
3 and it increased in 1979 before it really
4 look like they badged a large percent and the
5 case, of course this is just a sampling, but
6 the three guard cases I looked at going all
7 the way back to the fifties, the guards were
8 never badged.

9 CHAIRMAN CLAWSON: Right.

10 DR. BUCHANAN: On the three cases,
11 three guards I looked at were not badged. So,
12 anyway, that'll shed a little light on it, I
13 know it doesn't really answer the question
14 were the most exposed badged, but it does
15 show when badging, how the badging progressed
16 through the years.

17 CHAIRMAN CLAWSON: Okay. Well and
18 like I say it sounds like a lot is going to
19 be hinging on you guys' paper that's coming
20 out and Mark that may help you in part of my
21 question that I had there.

22 MR. ROLFES: Well Brad I would say

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1 that we certainly can, as Ron pointed out,
2 address the the accuracy of the data, the
3 completeness and certainly there's a
4 petitioner issue about, you know, too few
5 workers monitored for valid dose
6 reconstruction that was another issue.
7 Whether the most highly exposed worker was
8 badged I would think is something that maybe
9 Mark can go back and provide -- go back to
10 the ER and the basis for the ER may provide
11 an answer.

12 Certainly that was part of the
13 petition but we did not have from an SC&A
14 standpoint an issue on that for a Site
15 Profile.

16 CHAIRMAN CLAWSON: Okay. Well,
17 Joe, I guess I'm going to refer to you. Is
18 there any other thing on, anything else that
19 we need to get clarification on this for a
20 path forward?

21 MR. FITZGERALD: Well I think
22 again on the external issue we're doing data

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1 completeness and accuracy, that's going to
2 address some of the petitioner issues
3 explicitly from our standpoint. The issues
4 that we have raised in the matrix though I
5 think need a NIOSH response as far as -- I
6 call it housekeeping but certainly some of
7 these issues are fairly old, three or four
8 years old from the Site Profile. Some of them
9 have been addressed in OTIBs and what have
10 you, and the way it was left at the last Work
11 Group meeting was, even though this is
12 tilting towards Site Profile, NIOSH would
13 provide a response to these matrix items as
14 far as how they would be addressed and
15 resolved from their standpoint.

16 CHAIRMAN CLAWSON: Okay.

17 MR. FITZGERALD: That would be,
18 that would be something that would be
19 highlighted in any action piece that would go
20 out but again I think we want to make sure
21 that the context is clear, you know, we're
22 not saying that this is looking like a bigger

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1 and bigger SEC issue. In fact it's going the
2 other way.

3 CHAIRMAN CLAWSON: Okay. Well,
4 Joe, is there anything else that we need--

5 MR. FITZGERALD: Well, beyond that
6 you know, I don't want to take up a lot of
7 time on the neutron issue. We did spend time
8 in May talking about that in some detail,
9 it's in the transcripts. NIOSH now has, as
10 does the Work Group, the paper that we
11 generated, and in short, you know, NIOSH has
12 adopted a new approach different that what
13 was in the ER making use of actual data
14 rather than the neutron proton ratios using
15 MCMP and the coworker model and we had
16 examined that overall approach as part of the
17 Mound SEC so that gave us a leg up on this
18 thing and we also have the benefit of the
19 latest response to our response on the MCMP
20 issue from Mound that came in early December
21 so we looked at that as part of Ron's
22 treatment of this thing he authored the White

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1 Paper that went out the end of December so I
2 know Mark is in the throes of going through
3 that paper and I think we're certainly
4 interested in that response when it's ready.
5 But I think that certainly is on track to
6 some closure.

7 CHAIRMAN CLAWSON: Okay. Mark do
8 you have any kind of a time frame that we'd
9 be looking at for the response for that?

10 MR. ROLFES: I'm saying it should
11 be probably about a month before we receive
12 it, you know, give or take a couple of weeks
13 including the review if necessary et cetera
14 by DOE so hopefully by the end of February we
15 should have something out.

16 CHAIRMAN CLAWSON: Okay, we'll be
17 looking. Okay, do we have any other issues
18 that need to come before the Work Group, Joe
19 or Mark, that we need clarification on?

20 MR. FITZGERALD: No, I think, I
21 think the justifications that the Work Group
22 wanted and we're trying to be more definitive

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1 about it is where we still are and I think if
2 we can somehow get those together and have
3 that discussion in the next few months that
4 should that should be enough.

5 CHAIRMAN CLAWSON: You're talking
6 the classified?

7 MR. FITZGERALD: Well, some of the
8 discussions that are facility specific or
9 source specific will have to be at a secure
10 location. That combined with our open
11 discussion I think would help put these to
12 rest.

13 CHAIRMAN CLAWSON: Okay. And I
14 think you're -- Jim you said that you had
15 read Joe's response here and after today's
16 call here, are there any other questions or
17 question of direction that you may have had?
18 I know that Mark hasn't had a chance to read
19 this in entirety and that's why I'm directing
20 it towards you, Jim.

21 DR. NETON: No, Brad, I think
22 we've covered the issues okay by my opinion.

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1 CHAIRMAN CLAWSON: Oh, okay, I
2 just wanted to make sure that we didn't have
3 any outstanding issues that needed a little
4 bit more clarification on. Mark, is there any
5 question of the direction and the -- what the
6 Work Group and SC&A is looking for as
7 further, I guess, justification or--

8 MR. ROLFES: I don't think I have
9 any questions at the time but I might have
10 something once we receive the email you know,
11 with the update on these four threshold
12 questions from SC&A and if there's a question
13 at the time I'll relay it in my emails.

14 CHAIRMAN CLAWSON: Okay.

15 MR. ROLFES: Okay.

16 CHAIRMAN CLAWSON: And I'm sure it
17 will all go from there. Well is there
18 anything else that needs to be brought before
19 this Work Group at this time? Does anybody
20 have anything that--

21 DR. FUORTES: Are the petitioners
22 allowed to speak?

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1 CHAIRMAN CLAWSON: I, yes, I'm
2 sure that we're, yes, you do.

3 DR. FUORTES: Thank you. This is
4 Dr. Fuortes, and thank you, I have to run to
5 a clinic in just a couple minutes but I do
6 have several things I would like to address.
7 You've all probably heard of our frustration
8 as petitioners and the issue that five years
9 of getting this discussed seems to be
10 excessive when we have people dying from the
11 early years of this facility about 100 a year
12 and people are getting disenfranchised
13 because of the delays.

14 I find it disturbing that SC&A
15 says we are four years waiting for responses
16 from NIOSH and I find it disturbing that
17 there is a give and take, as an audience
18 member, between SC&A and NIOSH which is
19 almost denial, it did happen, it didn't
20 happen. The important thing from my
21 perspective that you guys can address as a
22 Board is that there is a different focus

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1 obvious to me by NIOSH and SC&A than the
2 petitioners and what we are seeing is that
3 NIOSH is focusing on finding as much
4 information as they can from recent years and
5 trying to by analogy make judgments about
6 exposures and risks in eras when there was
7 not available exposure information or risk
8 information.

9 Given that, the SEC process
10 hinges on what information is not available,
11 I do not want to quote Rumsfeld but the issue
12 is that from a petitioner standpoint our only
13 case is on the basis of lack of personal
14 exposure information from which rapid
15 scientifically valid dose reconstructions can
16 be performed. Given that, I have asked
17 repeatedly NIOSH and the Board to please look
18 at the precedent set by the Iowa Army
19 Ammunition Plant and consider if you could
20 not through an 8314 process or whatever
21 process you can perhaps dividing up the SEC
22 petition over years, make judgments that

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1 affect those people from the earliest years
2 for whom you know there is not sufficient
3 exposure information to come up with valid
4 rapid personally based dose reconstruction.

5 Another issue I'd like to say is
6 that when you talk about exposure monitoring
7 being event driven, that doesn't take into
8 account events that were described to us by
9 workers, for example, workers telling us we
10 had exposures to tritium leaks for which
11 there is no information in the medical report
12 for people in their medical charts, but
13 people tell us a consistent story of being
14 sent to the doctors -- the medical office for
15 prescriptions.

16 So, it does appear that there is
17 a, I think, overwhelming evidence of lack of
18 data from pre-1975, '85, or '90, whichever
19 date you wish to pick, but I would think that
20 that's something that the petitioners would
21 really appreciate you guys looking at instead
22 of arguing over the eras for which you have

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1 data, determine those eras for which you do
2 not have data and assess the SEC process I
3 believe as it was designed to be to be done.

4 CHAIRMAN CLAWSON: Thank you,
5 Laurence, I appreciate that and I'm--

6 DR. FUORTES: It was a mouthful.

7 CHAIRMAN CLAWSON: No, no, and I
8 understand exactly what you're saying and
9 I've had similar questions myself and this
10 falls into NIOSH's hands and because they're
11 the ones that establish the 8314s and so
12 forth but we appreciate your comments and
13 we'll take them into heart and we'll proceed
14 forward with what we can do.

15 DR. FUORTES: Thank you guys very
16 much.

17 CHAIRMAN CLAWSON: Appreciate you,
18 Lars.

19 DR. FUORTES: Thanks, okay, I got
20 to run. Thanks a lot, okay, goodbye.

21 CHAIRMAN CLAWSON: There's--

22 MEMBER BEACH: This, this is

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1 Josie. CHAIRMAN CLAWSON: Okay.

2 MEMBER BEACH: I just wanted to
3 bring up the, the draft that Joe sent out on
4 the Pantex event, the description of the
5 dates of you know, how the whole petition has
6 gone from September 8th 2006 until now and I
7 hadn't heard any comments on it today so I
8 was just wondering if everybody had received
9 that, that kind of goes back to what Lars was
10 talking about. And how long this has taken.

11 CHAIRMAN CLAWSON: Yes. I've I
12 believe everybody's got the time line, the
13 chronological Pantex Site Profile.

14 MEMBER BEACH: Was that just an
15 information piece?

16 CHAIRMAN CLAWSON: That was that
17 was actually done for me because of questions
18 that had come up earlier of when things had
19 been issued and brought out and so this was
20 put together for my personal use but as Joe
21 said, you know, it's just for everybody to be
22 able to know where the time line was at and

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1 we had some emails that went out the time
2 lines were a little bit off but I agree with
3 Lars we're getting out there into an awful
4 lot of years. We can do what we can do, we're
5 proceeding forward and I hope that after this
6 Work Group that we'll be able to make a
7 better path forward and go from there. So I
8 guess--

9 MEMBER PRESLEY: Hey Brad?

10 CHAIRMAN CLAWSON: Yes.

11 MEMBER PRESLEY: Bob Presley, I
12 got a question.

13 CHAIRMAN CLAWSON: Okay.

14 MEMBER PRESLEY: We're hearing a
15 whole lot of talk on this thing about people
16 not being badged, we did the same thing at
17 NTS. Is anybody looking to see if the people
18 that aren't badged if we got any records on
19 them whatsoever?

20 CHAIRMAN CLAWSON: That actually
21 falls into NIOSH but I think I think Kathy on
22 this data adequacy did we did we cover this

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1 portion of it?

2 MS. ROBERTSON-DEMERS: I think
3 that Ron could better answer that question on
4 the external.

5 CHAIRMAN CLAWSON: Okay. Ron?

6 DR. BUCHANAN: Okay. Well when I
7 looked at the, I went through like 24 claims
8 to see who with titles that were -- indicate
9 you know, they could have been exposed and
10 potential for exposure and looked at the
11 number of people that were badged and as I
12 stated earlier and I did some plots in there
13 and it showed that as time increased, the
14 badging became more prevalent. And so the
15 people that were not badged and had potential
16 for exposure in that case you know, you
17 really couldn't tell what degree of exposure
18 they had but they was like operators and
19 assemblers that sort of thing that would
20 indicate they could have been exposed. So you
21 know, the question of how the badging was
22 done, it appears in the early days it was

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1 done on more of a spot or cohort-type basis
2 and then into the 70s they started doing it
3 more thoroughly and it was about `79 that
4 they started badging like 90 percent of those
5 that would indicated they was in a potential
6 area and get before the, the early `60 and
7 50's you had you know, some -- none of the 22
8 cases were badged.

9 MEMBER PRESLEY: My question is
10 somebody looked into see if we have any
11 badging information on any of these people?

12 CHAIRMAN CLAWSON: Mark, I guess
13 that'd be a question for you.

14 MR. ROLFES: Yes, you know, we've
15 we've heard similar issues about badging and
16 individuals not being monitored and that is
17 something that we have looked into in the
18 past, usually in the dose reconstruction
19 process we've actually heard that on a number
20 of cases for some of the individuals. Some
21 individuals have said you know, that they had
22 been working in a certain job for several

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1 years and expressed some concerns and were
2 given a badge and then received some
3 measurable external doses, and you know, we
4 certainly acknowledge that that could have
5 happened and so what we've done in those
6 cases is used either coworker data or data
7 from the more recent time period when they
8 were not badged, or when they were badged to
9 assign you know, unmonitored doses for the
10 earlier years. So yes, it has been
11 stated certainly and that's something that is
12 considered during the dose reconstruction
13 process.

14 CHAIRMAN CLAWSON: Well Mark let
15 me ask you this and this question from Mr.
16 Presley there is how does the dose
17 reconstructor know to be able to use coworker
18 or whatever? You know, a lot of these name
19 changes and we've found this in Site
20 Profiles we found this at other sites that
21 jobs change names and so forth don't, you
22 know, don't trigger anything. How do you, how

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1 does the dose reconstructor know if there's
2 no data there how does he know to use -- what
3 coworker model does he use to know?

4 MR. ROLFES: If there are no data
5 in the earlier years but there are data you
6 know, if there suddenly becomes data in the
7 subsequent years, then the individuals doing
8 the same job working in the same area, et
9 cetera, then in those cases you know -- it's
10 very similar to other sites if an individual
11 is monitored for several years and then not
12 monitored for a couple of years or you know,
13 for a couple of cycles within a year, we can
14 use data surrounding that time period to
15 bound potential doses or estimate with
16 reasonable, you know, within a reasonable
17 estimate, the dose that they could have
18 received when they weren't monitored and in
19 addition to their monitored doses we also
20 assign missed doses for the time period when
21 they were wearing their badge but did not
22 receive any recorded doses.

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1 MEMBER PRESLEY: Well because one
2 of the questions that came up with -- one of
3 the people that we had on the tour was this
4 was the accountability people that had to go
5 out there and they weren't monitored and I'm
6 just wondering, you know, we've got some
7 later years data but nothing earlier.

8 DR. NETON: Brad, this Jim. There,
9 in reality there are usually only a few job
10 categories that we look at, one is very
11 highly exposed, they'd be assigned a 95th
12 percentile. People who were, you know,
13 moderately exposed, they were in and out of
14 the workplace would be like the middle, 50th
15 percentile and then someone who really didn't
16 work in radiological areas would be given
17 environmental exposures. And those broad,
18 those are very broad categories. And so
19 depending on, usually depending upon a
20 person's job category that comes about
21 through their their application to the
22 program or either through their CATI, it's

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1 usually fairly well known what type of work
2 they did, you know, and if there was a doubt
3 we would always assign the higher coworker
4 model than a lower one.

5 CHAIRMAN CLAWSON: Well and you
6 know, I I guess, yes, I understand what
7 you're saying there but one of the ones that
8 came out into it was the pipefitters and I
9 saw one dose reconstruction and they had that
10 you know, he wasn't around the radiation but
11 he actually had to go into all of these
12 buildings and so I guess that does kind of
13 bring up the question.

14 But, Bob, what were you looking
15 for a, exact, because in the Site Profile it
16 said that in earlier years that they did spot
17 badging and then it increased over the years
18 but does this answer your question, or?

19 MEMBER PRESLEY: No, this question
20 came up at NTS, okay, explaining that we
21 don't have badges, we don't have badges, we
22 went back checked on the stuff, probably 99%

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1 of these people did have a badge on the day
2 they said they didn't.

3 CHAIRMAN CLAWSON: All right but
4 if you remember what pushed NTS over the edge
5 was what we were basing our data on, then we
6 got it knocked out from under us later on and
7 I understand your question on NTS but bottom
8 line with Pantex, I don't see in the earlier
9 years that they had meant that a good
10 majority of them weren't badged.

11 MEMBER PRESLEY: Okay.

12 MEMBER SCHOFIELD: Brad, this is
13 Phil. I've got a question that's kind of
14 geared towards Kathy and she was looking for
15 some records that are supposed to exist of
16 shipments to and from Pantex but turns out
17 they had loose contamination in some of those
18 shipments, I wondering if she managed to find
19 those records.

20 MS. ROBERTSON-DEMERS: Those
21 records are still at Y-12 undergoing
22 classification review. But yes we did see

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1 some shipping records. We looked for shipping
2 records for Medina, Clarksville, and Pantex
3 and at least for some components there was
4 some level of contamination on containers
5 being shipped out of Y-12. If that helps,
6 that answers your question.

7 MEMBER SCHOFIELD: Yes, it does.
8 Thanks.

9 CHAIRMAN CLAWSON: Okay. Any other
10 questions? If not hearing any, I'll be
11 expecting to see the emails between Mark and
12 Joe and we'll proceed on and we'll go from
13 there. Anything else that needs to be taken
14 care of, Ted? Is the tasking all good, or--

15 MR. KATZ: No, Brad, I think it's
16 all quite clear and we'll have marching
17 orders out from Joe and Mark very quickly I'm
18 sure. I I just want to thank everyone on this
19 call for the great civility of tone et cetera
20 in the discussion because I know you know, I
21 know some of this discussion was difficult in
22 trying to get everybody on the same page and

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1 I think everybody really carried on a very
2 nice discussion to get to where we needed to
3 get to on this call so again I thank you all
4 for that.

5 CHAIRMAN CLAWSON: Okay. On Joe
6 and Mark I guess we'll be waiting to hear
7 from you on the meeting in Germantown and the
8 more heads up we can have it would be
9 appreciated.

10 MR. ROLFES: Okay. Yes, I, as far
11 as that's gone I actually just received an
12 email here from Greg Lewis on that and need
13 to follow up with him. I expect that we
14 should be able to do something in February,
15 probably later February it all depends on the
16 number of records that need to be sent from
17 Livermore over to Germantown to support that
18 meeting, and I got to check on, we're
19 basically waiting to check to see what number
20 of records there are for Pantex that are out
21 at Livermore for us and once we identify how
22 many there are we'll go ahead and have those

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1 transferred up to Germantown, and I guess the
2 same thing is going to occur with SC&A--

3 MR. FITZGERALD: Yes, you might,
4 just to close the loop we're going to talk to
5 Greg but you might mention that to Greg as
6 well that he needs to also close with Kathy
7 about some of the material at Hanford. Yes,
8 just so he knows the complete picture is your
9 whole thing's at Livermore and we have
10 probably a lot fewer items at Hanford but
11 that's what needs to transferred.

12 MR. ROLFES: I suspect I suspect
13 we probably have the exact same records in
14 our holdings even though we haven't
15 independently looked at each others.

16 MR. FITZGERALD: Yes, you know I
17 think part is just trying to figure out what
18 exactly is there which will be helpful to do,
19 too.

20 CHAIRMAN CLAWSON: Kathy, this is--
21 --don't you have a list of documents that we
22 have that you have at Hanford, there?

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1 MS. ROBERTSON-DEMERS: I have in
2 my office a list of most of the documents I
3 have there, DOE-RL reserved the right to keep
4 part of that list with my collection. So I
5 suppose I can--

6 CHAIRMAN CLAWSON: Well I just
7 didn't want to have to send a double batch of
8 the same records to Germantown if they're
9 already coming in, is what I was thinking, or
10 vice versa. I just wanted to make sure that
11 we're not duplicating these things.

12 MS. ROBERTSON-DEMERS: If you want
13 I can compile a list and it would have to go
14 down to the Pantex to be checked out.

15 CHAIRMAN CLAWSON: Okay.

16 MS. ROBERTSON-DEMERS: I don't,
17 you know, it's up to you, Mark, whether that
18 would be something that's helpful. I can give
19 you the titles that I already have that they
20 released, I just have to put them in a
21 spreadsheet and send them, but there's other
22 titles that they would not release to me.

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1 MR. ROLFES: As far as I'm
2 concerned it doesn't matter if you would
3 prefer to do that, that's fine, and the other
4 option is just to send what you have, I mean,
5 that's the majority of the records that we
6 have I think I had sort of expressed what we
7 had in our holdings, the majority of the
8 records we've asked if there's any health
9 physics information we would need for dose
10 reconstruction for an incident, for example,
11 that DOE removed any sensitive information
12 from that and release the health physics data
13 to us. And then you know, more than 99
14 percent of the reports we've encountered
15 that's been the case, there's just bits and
16 pieces of things that I know that the Board
17 Members have wanted to look at to, you know,
18 make sure our assumptions are valid, et
19 cetera, and so that's, you know, those are
20 the remaining you know, few it's much less
21 than 1 percent of the records that we've
22 collected that remains in storage with DOE.

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1 CHAIRMAN CLAWSON: Okay. Well I'll
2 be staying in touch with you Mark and Joe on
3 that meeting. If there's nothing further, I
4 guess we'll call this Work Group to a close.
5 I appreciate you all participating.

6 (Whereupon, the above-entitled
7 matter was adjourned at 1:10 p.m.)

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