

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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WORK GROUP ON HANFORD

+ + + + +

WEDNESDAY
AUGUST 17, 2011

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The Work Group convened
telephonically at 3:00 p.m. Eastern Time,
James M. Melius, Chairman, presiding.

PRESENT:

JAMES M. MELIUS, Chairman
PHILLIP SCHOFIELD, Member
PAUL L. ZIEMER, Member

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ALSO PRESENT:

TED KATZ, Designated Federal Official
ISAF AL-NABULSI, DOE
LYNN AYERS, SC&A
WILFRED "BUCK" CAMERON, ATL
ANNETTE CARY
SAM GLOVER, DCAS
STU HINNEFELD, DCAS
JENNY LIN, HHS
JOYCE LIPSZTEIN, SC&A
ARJUN MAKHIJANI, SC&A
JIM NETON, DCAS
FAYE VLIIEGER

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C-O-N-T-E-N-T-S

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

2 (3:01 p.m. EDT)

3 MR. KATZ: Okay. So welcome,
4 everyone. This is the Advisory Board on
5 Radiation and Worker Health, the Hanford Work
6 Group. And as usual, we'll begin with roll
7 call. And because we're speaking of a site,
8 please speak to conflict of interest,
9 beginning with Board Members.

10 (Roll Call)

11 MR. KATZ: Okay. Very good.
12 There's an agenda for the meeting, which is on
13 the NIOSH website under the Board section of
14 the website, the Board Meetings section of the
15 website. And it's your agenda, Jim.

16 CHAIRMAN MELIUS: Okay. Thank you
17 very much, Ted. And welcome, everybody. The
18 purpose of this meeting is to try to
19 coordinate. SC&A has finished an updated
20 report, mainly focusing on Special Exposure
21 Cohort issues.

22 And this was updated in the context

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1 of some of the prior SECs this has been
2 developed for, as well as, then, some
3 decisions by NIOSH that were supported by the
4 Board, to award SECs to certain groups within
5 the Hanford complex.

6 And so we sort of needed to redo
7 and update. There was also additional
8 information available. And on top of that,
9 there are two other -- one recent SEC petition
10 that was approved for this site, Petition
11 Number 155. And there's also another active
12 SEC that's under consideration.

13 So we wanted to try to get issues
14 identified and prioritized. I should also add
15 that some of the earlier petitioners had also
16 raised some additional issues that they wanted
17 to make sure were considered, either as SEC
18 issues or as Site Profile issues that might be
19 related to dose reconstruction.

20 So the purpose of this call, today,
21 is to try to get to some prioritization
22 issues, get a path forward for dealing with

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1 the past SEC petitions still active and still
2 under evaluation, as well as the new SEC
3 petitions.

4 So I'm going to turn the program
5 over to Arjun to give us an update, a status
6 update. He is -- Arjun has completed, and
7 SC&A has completed, the two recent reports: an
8 update of the SEC issues matrix, as well as an
9 updated review report on Special Cohort
10 issues.

11 I believe both of those have now
12 gone through appropriate clearance and are
13 available. And, Arjun, I don't know which
14 one's the easiest for you to work off of. I
15 think these are relatively long reports and
16 there's lots of issues. And it may be helpful
17 to do them in some priority order, but I'll
18 let you decide what the easiest way is to
19 present these to the Work Group.

20 DR. MAKHIJANI: Well, thank you,
21 Dr. Melius. This is Arjun Makhijani from
22 SC&A. Yes, we sent out -- we had a matrix

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1 that was done after NIOSH had suggested an SEC
2 up to '72, and the Board had recommended it.
3 And then NIOSH revised its Site Profile for
4 dose reconstruction methods after that date.
5 It also included before that date, but of
6 interest to the SEC was up to 1990, between
7 '72 July 1st and December 31st, 1990.

8 So since we had a matrix with
9 numbered SEC issues, what we did was we
10 reviewed the site profile at the direction of
11 the Working Group and the Board according to
12 those matrix numbered issues that were still
13 unresolved for SEC purposes.

14 Now, we did not review the full
15 Site Profile as we would on a normal Site
16 Profile. We just did an SEC review. We sent
17 out that report in two volumes. You're quite
18 right, it is quite voluminous.

19 By the way, there was a little bit
20 of a logistical mix-up, and there will be a
21 slight change in one of the sections. It's
22 not going to affect things materially, but we

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1 will send out a Revision 1 soon. But the
2 report is good for all intents and purposes
3 for this call.

4 And I'd like to go through the
5 matrix. If you could just follow through the
6 matrix, that will make it easier, and then if
7 people have detailed questions I can refer you
8 to the more detailed version in the report.

9 The report itself is organized
10 according to the matrix numbers, and we had a
11 number of findings. So should I do that, Dr.
12 Melius?

13 CHAIRMAN MELIUS: Yes, you should.

14 I had my mute on, so --

15 DR. MAKHIJANI: Oh, okay, sorry.

16 CHAIRMAN MELIUS: That's okay.

17 DR. MAKHIJANI: So the first two
18 issues had already been resolved as SEC
19 issues, concerning thorium dose up to a
20 certain date, up to July 1, 1972. And the
21 third thorium issue remaining extended beyond
22 that.

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1 We did find that there were
2 probably sporadic and intermittent references
3 to thorium work, both kind of decommissioning
4 and cleanup oriented work, as well as some
5 potential production-related exposures. So
6 there are some thorium issues still remaining
7 after the 1972 July period.

8 The next issue, issue number four,
9 concerned highly enriched uranium. The main
10 highly enriched uranium handling stopped in
11 the late '50s, but there was some use in the
12 lab and maybe in other places. And there's
13 only fluorometric data until 1983.

14 And so there are some, probably
15 restricted, highly enriched uranium-related
16 dosimetry issues, because you can't really
17 apply fluorometric data to highly enriched
18 uranium, and interpreting all such data as
19 highly enriched uranium would greatly distort
20 the actual dosimetry, because most of the
21 uranium was, you know, around one percent or
22 less. Some may have been up to about two

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1 percent.

2 So there are some highly enriched
3 uranium issues remaining. I understand that
4 NIOSH is -- NIOSH has been researching things
5 in parallel with us, so probably Sam will
6 amplify on many of these things.

7 The question of uranium intake of
8 low-enriched or normal or depleted uranium
9 prior to 1948 was resolved, but between '72
10 and 1990, we've found that there are ample
11 data, but -- and so it's not an SEC issue, but
12 may need some revision of the co-worker model
13 to ensure that the approach is claimant-
14 favorable.

15 Now, there's a caveat to this whole
16 review, because there's that other SEC still
17 pending, that NIOSH is just going to discuss
18 after I'm done, which is that we did not
19 review issues associated with the quality of
20 data between '87 and '89 in the 200 area,
21 because that's a separate SEC that will be
22 discussed later.

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1 So uranium intake, we don't think
2 is an SEC issue. At least, we didn't have a
3 finding that concerned the feasibility of dose
4 reconstruction, just an adjustment of the co-
5 worker model.

6 There's uranium-233. We did not
7 find any specific reference to uranium-233
8 handling post-'72, but we did find that
9 thorium pellets were being made, and we did
10 not know whether these pellets were actually
11 irradiated at Hanford or what happened to
12 them.

13 So a little bit of further digging
14 into that issue seems to be warranted to see
15 if there were uranium-233 exposures. And this
16 is in the context of -- we really have only
17 fluorometric data through certain dates in the
18 1980s.

19 Then there is a recycled uranium
20 intake estimation, and we found that there are
21 actually data from the site where there are
22 trace contaminant measurements, from '69

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1 through '72, or '68 through '72. And we
2 suggest that NIOSH should use the data from
3 '70 to '72 to estimate the trace contaminant
4 ratios, rather than the data from the late
5 '80s, because in the late '80s, there wasn't a
6 lot of recycled uranium being handled. PUREX
7 was -- the reprocessing plant was operating
8 only intermittently, and so my -- we thought
9 it would be better if they used a different
10 set of data, and we've identified that set of
11 data for NIOSH, NIOSH's consideration, for the
12 Working Group's consideration.

13 But in principle, it seems that the
14 data are available to develop the ratios.
15 They're available from the site, and just
16 before the period under consideration, from
17 the same process, from the PUREX plant.

18 Neptunium, post-1972 -- there's
19 clear evidence of neptunium separation up to
20 the end of 1972, so six months past the period
21 that the SEC has already been granted.
22 There's some discussion of later neptunium

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1 processing, but we couldn't find whether there
2 actually was processing or whether there were
3 plans.

4 And this is because when neptunium
5 rods, target rods, were irradiated, then there
6 was handling of pure neptunium, rather than
7 just as a contaminant in other mixtures. So
8 this is an issue that needs to be settled.

9 And we think there were data for
10 the last six months of 1972, so the Working
11 Group might want to consider that, or NIOSH
12 might want to consider that.

13 Tritium, which is issue number 10.

14 Did people have -- I guess if people have
15 questions on these issues, they might want to
16 ask me as we go along, because it's quite a
17 raft of issues here. Or should I just -- I'll
18 just go on, I guess, until people have
19 questions.

20 Tritium intake from 1972 onwards,
21 we found that -- again, this is not an issue
22 whether there is adequate tritium data for

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1 tritiated water, but we found that there was
2 not an adequate technical justification for
3 the way the co-worker model was set up between
4 '72 and '81.

5 And also, there was a production
6 period up to June 30, 1973 that needs to be
7 separately addressed. And NIOSH has not yet
8 defined the organically bound tritium and
9 tritide exposure.

10 It's raised the question of the
11 potential exposure, but the Site Profile
12 contained no details and no model. So that's
13 an outstanding issue, potentially. If there
14 was exposure potential -- there wasn't defined
15 exposure potential or area especially for
16 tritides.

17 Promethium-147, which was a
18 radionuclide that was separated at Hanford in
19 quite large quantities -- promethium-147
20 production did occur until the end of 1975.
21 The Site Profile says -- has an earlier date
22 for ending promethium-147 production.

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1 And so, given that there was
2 production going on, the claimant -- the
3 assignment of dose is not claimant-favorable.

4 And then there are also incidents for
5 promethium-137 that need to be addressed in
6 the dose reconstruction, so it's not clear
7 whether this will wind up as an SEC issue.
8 There are earlier data available for
9 promethium-147.

10 Then there are some other fission
11 products: strontium-90, cesium-137, mixed
12 fission products. There are a lot of data for
13 these radionuclides, including mixed fission
14 products, but there is some question about the
15 quality of some of these data.

16 We found audits in some years in
17 the 1970s where the minimum detectable amount
18 was not being met in certain years, and then
19 later on, the amount -- the problems appear to
20 have been fixed.

21 And we did not find any comparable
22 audits for the 1970s. It's not clear if they

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1 were done. Perhaps they were not done. At
2 least, we didn't find any paper trail on it.

3 We found strontium-90 intake
4 assignment was not claimant-favorable, and a
5 better model needed to be developed. Then
6 there were strontium and cesium separation and
7 encapsulation programs that have not been
8 adequately taken into account. So whether the
9 existing data can be applied to the workers
10 who were doing that needs to be -- and a
11 claimant-favorable model developed -- still
12 needs to be done.

13 The tank farm worker data are
14 sparse, and tank farm workers of course --
15 high-level waste tank farm workers were
16 handling and there were incidents. And this
17 is an issue that needs to be investigated,
18 whether the model is claimant-favorable for
19 that set of workers.

20 Tank farm alpha contamination is
21 addressed as part of other matrix items,
22 because we actually went through and looked at

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1 adequacy of data by area and worker type. And
2 all that detail is provided in Volume 2 of the
3 report that we sent you.

4 Plutonium intake estimation. There
5 are quite a lot of plutonium data, but Super S
6 solubility type is not addressed in the Site
7 Profile. The minimum detectable amount was
8 not met in 1981.

9 Also, in other parts of the
10 measurement spectrum, even including above the
11 minimum detectable amount, there was a
12 variation between the measured amount and the
13 actual amount in standard samples and the
14 amount measured by the lab.

15 So it seems, at least, that some
16 correction in the measurements might be called
17 for. But the issue of the quality of data,
18 even before 1987, does need to be addressed.
19 I mean, in other years, the problem appears to
20 have been fixed. Again, we didn't find audits
21 for the 1970s.

22 NIOSH has extended 1987 intake

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1 assignment into '88 and '89, and we're not
2 quite clear whether that is appropriate. Hot
3 particle ingestion is an issue for the early
4 period that's been granted an SEC, so that's
5 not an issue.

6 Curium-244, issue number 16. There
7 are some data, but there are no data for '73,
8 and the data are quite sparse up to '83. And
9 the co-worker model may be feasible for 1984
10 to 1990.

11 NIOSH has said they're going to use
12 plutonium data to estimate neptunium intake.
13 And this is a little bit misplaced comment, I
14 think, in the wrong matrix item, but I
15 referred to neptunium earlier. In those
16 instances where neptunium, pure neptunium or
17 irradiated neptunium, was being handled, I
18 think it needs to be considered in its own
19 right and not as a trace contaminant.

20 Neutron dose issues are addressed,
21 because the early neutron doses become part of
22 the SEC. External exposure geometry, we

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1 agreed earlier on was a Site Profile issue and
2 not an SEC issue. There are quite a lot of
3 external exposure data.

4 And there was a petitioner-raised
5 issue of lack of adequate monitoring, and we
6 have agreed that external data are adequate
7 and that internal data are covered in the
8 other matrix items.

9 There's a skin contamination issue
10 that was raised in site expert interviews, and
11 the routine exposure is captured by
12 dosimeters, and we have a separate item
13 relating to incidents, so that was absorbed.

14 There was a big issue relating to
15 missing records and destroyed records. This
16 was a petitioner issue, and we looked into
17 this in quite a bit of detail. We had a very
18 large list of box numbers and titles of
19 documents that had been destroyed, it appears,
20 as part of the routine sort of document
21 management at Hanford.

22 And most of the boxes related to

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1 the period before 1972, and so not relevant.
2 Many of the boxes were obviously
3 administrative records, like time card records
4 and purchasing records, things like that.

5 Some boxes may have had relevant
6 data. We don't know if duplicates existed,
7 and we don't have a listing of the contents.
8 We only have a listing of the titles of the
9 boxes.

10 There is some question in regard to
11 incidents, and whether the records of
12 incidents are adequate. And we examined that
13 as issue number 22. And we found that, in the
14 claimant records, the incidents that are
15 mentioned in the worker interviews and the
16 computer assisted telephone interviews do
17 exist in the DOE-supplied claimant records.

18 It's not 100 percent, but it's
19 close, and we have an extensive listing in
20 detail of the issues, incidents that we looked
21 at. That's not true of the computerized
22 database, which is called the REX database at

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1 Hanford.

2 There are some incidents that are
3 not in the REX database that are in the
4 individual Department of Energy-supplied
5 claimant records, and we are presuming that
6 those are used in dose reconstruction at
7 Hanford.

8 We didn't find any pattern that
9 there was a -- that Hanford was omitting
10 incidents from personnel records as a way of
11 avoiding recording the incidents. We did find
12 that there were some -- there were a few
13 scattered incidents that we mentioned, that we
14 didn't find in the records, but they were a
15 very small number.

16 The REX database adequacy is
17 already covered. The polonium issue is an
18 early issue, so not relevant for an SEC
19 examination for the period '72 to '90. There
20 were a bunch of miscellaneous radionuclides,
21 and here there is a quality of data issue.
22 MDA was not met in 1981 for several

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1 radionuclides.

2 1981 somehow seems to have been a
3 problem year for more than one radionuclide.
4 Later on, it did not address these
5 miscellaneous radionuclides, so we don't know
6 what happened with the quality of measurements
7 in those later audits.

8 Some radionuclides have adequate
9 data, like cobalt-60. Other radionuclides,
10 not so much. So this is a very complicated
11 issue, because a lot of radionuclides are
12 thrown into it.

13 Data completeness, we've addressed
14 on an area, worker and radionuclide basis.
15 There was an issue that was brought up during
16 the course of the Work Group meetings, which
17 was very high contamination was discovered
18 during decommissioning under Building 324.
19 And we added this issue to the matrix. It's
20 issue number 27.

21 We did a number of interviews. And
22 for the particular leak or spill in question,

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1 the exposure potential really existed during
2 the decommissioning. We also found earlier
3 leaks, and we're not quite clear about the
4 exposure potential in relation to those, and
5 haven't investigated them in as much detail.

6 Now, in regard to Building 324, and
7 to some extent 325, I should mention that we
8 are -- these are part of the PNNL, these
9 Pacific National Labs. And we may or may not
10 be investigating these as part of that Site
11 Profile review.

12 This is mostly handling high-level
13 waste, and data on fission products do exist
14 for the period in which these leaks occurred.

15 But in order to determine, really, whether
16 the workers who were affected by the exposure
17 during that time -- because there was some
18 cleanup that happened during the earlier
19 spills at that time -- Lynn, correct me if I'm
20 going off-base here, but this -- and we're not
21 quite clear -- you know, we haven't tracked
22 the individual workers down to see whether

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1 they had adequate records and monitoring.

2 From the interviews of the workers
3 that we did, and we did do a fairly extensive
4 interview set, the workers seemed to agree
5 that monitoring in these areas at that time
6 was very good.

7 Lynn, did you want to add anything?

8 Lynn? Lynn Ayers, did you want to add
9 anything?

10 MS. AYERS: Sorry, Arjun. I had to
11 look at my rules on how to unmute in order to
12 answer. No, that seems like a fairly good
13 explanation.

14 DR. MAKHIJANI: Okay. So that's my
15 report, Jim.

16 CHAIRMAN MELIUS: Okay. Thank you,
17 Arjun. Do any Board Members have questions?

18 MEMBER ZIEMER: This is Ziemer. I
19 don't have a specific question, but I
20 appreciate the summary that SC&A provided. I
21 thought it was well done. I guess we're going
22 to be looking for at least -- will we get some

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1 answers or responses from NIOSH today or in
2 the near future? Or what's -- I guess that's
3 part of the plan forward.

4 CHAIRMAN MELIUS: That's part of
5 the path forward. What I was going to ask for
6 that, if nobody had -- we're done with our
7 questions -- was a reaction from NIOSH to
8 this.

9 I don't think NIOSH has had
10 adequate time to respond in detail. We're not
11 expecting that, but I think --

12 MEMBER ZIEMER: Right.

13 CHAIRMAN MELIUS: -- anything that
14 you want to add or clarify, and particularly
15 how these issues relate to some of the other
16 activity that's ongoing, that Sam and others -
17 - Sam Glover and others at NIOSH are doing.
18 So maybe it would be helpful to turn directly
19 to Sam, and --

20 DR. GLOVER: Just to make sure my
21 boss has no comments first, Stu, do you have
22 anything you want to add, or is it okay to go

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1 ahead?

2 MR. HINNEFELD: All I was going to
3 say was, I was going to defer to you.

4 (Laughter.)

5 DR. GLOVER: Always good to let the
6 boss talk first. Jim, as you know, we've kept
7 you, and the Advisory Board Members, and SC&A
8 as part of a follow-on to 1972, as we have
9 looked at the dose reconstruction feasibility.

10 I'll call it an 83.14 in that we're
11 evaluating the adequacy of the data, looking
12 at the source terms. A lot of this stuff is
13 classified, and that's why we've had you, the
14 members of the Work Group with appropriate
15 clearances, and members of SC&A with us on the
16 interviews, and also the data captures
17 regarding a number of different items.

18 I feel it may be best to not get
19 into too many details, but a number of the
20 items, certainly, Arjun has touched on. We
21 certainly are aware of these things, and so we
22 are -- we're going to look at what we've been

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1 developing, and also compare how those marry
2 up with what Arjun -- they did a very nice job
3 with the report.

4 There are certainly some issues
5 that we've identified, and as I said, we've
6 kept -- Arjun sort of did this independent of
7 the team that's been attending with us, so
8 they're sort of separate.

9 But there are certainly some
10 observations there that I hadn't made, and so
11 he certainly has found some things on the
12 promethium that I wasn't aware of. And so we
13 will carefully look at all of that, and see
14 how that marries up with the keyword searches
15 and the interviews that we have, and the holes
16 we had to fill.

17 So we will take all this into kind
18 of perspective, together, in a plan forward,
19 which we will keep you guys advised of and
20 participate in.

21 DR. MAKHIJANI: Sam, could I just
22 make a short comment, please?

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1 DR. GLOVER: Absolutely.

2 DR. MAKHIJANI: Yes. We proceeded
3 on parallel tracks because of the classified
4 nature of what Sam is investigating. What we
5 did was from the unclassified sources and the
6 Site Research Database and other unclassified
7 documents.

8 So that's why we've been proceeding
9 on these parallel tracks, and Bob Bistline
10 from our group has been working with Sam on
11 the classified portion. Thank you.

12 DR. GLOVER: And Brad Clawson -- I
13 don't think he's on with us, but he's attended
14 almost every one of our classification -- or
15 all of our reviews with us. So we've been
16 trying to keep the Board very closely tied to
17 this, as well.

18 CHAIRMAN MELIUS: Sam, I'm going to
19 put you on the spot. I apologize. I'm not
20 expecting a definitive answer, but what do you
21 think is a reasonable time frame for this? At
22 what point do you think you'd be ready to

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1 respond, and there'd be enough information to
2 decide how to go forward on sort of all the
3 SECs there, or potential SECs?

4 DR. GLOVER: I think my boss -- I'm
5 not going to speak too clearly without his
6 approval, and without bringing everything to
7 him. But some areas may have information that
8 lends them towards that, but there's the
9 overall scope.

10 And as we've seen, we've often gone
11 back and had to fix the Class where we've
12 tried to add it for a building or a small
13 area. And so that's -- I want to make sure I
14 bring enough of the picture to my boss and to
15 NIOSH to make sure that it can be reviewed, so
16 that the proper scope is given.

17 So part of the issue is, we
18 basically, to do the TBD, developed a number
19 of White Papers. Now, Hanford had removed all
20 of the stand-alone systems, and so we had
21 difficulty proceeding. Because we essentially
22 need to write some classified White Papers,

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1 because a lot of the information we have is in
2 the classified sources. So we'll basically
3 take those down to a level where we can then
4 disseminate those. So we now have -- Hanford
5 has now prepared a stand-alone system for SC&A
6 and our use, so we have a path forward. We're
7 going to get training on that on Monday, after
8 the tours at B reactor.

9 And so we are going to proceed.
10 Don Beal had previously been working on this.

11 Now Bob Burns has taken over. So we have a -
12 - we are actively going to begin putting this
13 together and assembling what we understand,
14 and also, of course, taking the information
15 that Arjun, gleaned from his sources.

16 I'm going to try -- it may be
17 chunked, in that we may have strong evidence
18 in certain time frames that we feel stronger,
19 to bring it to the Board. Like '83 is kind of
20 a cut point, because of the bioassay on
21 uranium.

22 So I will certainly try to take

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1 that into account, but I also need to see how
2 my boss wants me to try to manage it.

3 CHAIRMAN MELIUS: No, we
4 understand. I was just -- there may be some
5 issues that I don't think we want to put a lot
6 of -- it may sort of -- some of the issues on
7 this matrix may be, in some sense, taken care
8 of by other information and so forth.

9 And so trying to get everything
10 sort of in the right prioritization for it as
11 we go forward, and that also best addresses
12 the issues, needs for the petitioners, as well
13 as for the potential claimants at the site.

14 MR. HINNEFELD: This is Stu. All I
15 would offer is that, in the situation where we
16 have a large number of potential issues and we
17 -- as you said, Jim, we have to be a little
18 bit strategic about planning the work and the
19 sequence of the work, and the thought that
20 some things may become moot.

21 And so it's a little early on for
22 us to offer very much. And of course, as

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1 always, this work competes with all the other
2 work we do for time and resources. So it's a
3 little difficult to venture -- on my part, to
4 venture anything, because I'm --

5 CHAIRMAN MELIUS: No, no. I'm just
6 trying to think, sort of, when do we schedule
7 the next meeting. And maybe we just need for
8 you to get together internally, and decide
9 what --

10 MR. HINNEFELD: I think we might be
11 able to offer an opinion about that next week.

12 CHAIRMAN MELIUS: Okay. No, that's
13 fine.

14 DR. MAKHIJANI: Jim, this is Arjun.
15 If I might offer a sort of technical opinion
16 for your consideration and NIOSH's
17 consideration. I agree with Sam that '83 is
18 kind of a dividing line.

19 There are sort of a lot of data
20 after that, and quality of data, apart from
21 this '87-'89 thing seem to mostly be resolved,
22 according to the audits. And the quantity

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1 also seemed to be resolved. This is now from
2 memory of a very complicated report. But I
3 would agree with Sam on that.

4 CHAIRMAN MELIUS: Yes, good. I
5 guess my other question for Sam or Stu: the
6 issues related to SEC Petition 155, does that
7 overlap at all with what you're doing?

8 MR. HINNEFELD: I may have to look
9 that number up. Sam, is that the U.S. Testing
10 --

11 CHAIRMAN MELIUS: Yes, it's the
12 U.S. Testing one. I'm sorry. Yes.

13 MR. HINNEFELD: The specific basis
14 for the U.S. Testing petition can sort of be
15 isolated, we think, and dealt with separate
16 from other potential concerns that might arise
17 that might affect the same population for
18 different reasons.

19 CHAIRMAN MELIUS: Right.

20 MR. HINNEFELD: So for sort of
21 neatness and clarity of keeping the matters
22 straight in our mind, we would like to treat

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1 155 on its own basis, merit, with the
2 recognition that there are other decisions
3 coming later that could affect those people.

4 CHAIRMAN MELIUS: Right. Okay.
5 And one reason we hesitated on tasking SC&A on
6 Petition 155 was to -- we wanted to get the
7 matrix updated and the SC&A report finished
8 first. And so we had a context, sort of, for
9 going forward. And then have this discussion
10 before we started to task and move forward on
11 the reviews for Petition 155, the U.S. Testing
12 issue.

13 Arjun, do you have any comments on
14 that?

15 DR. MAKHIJANI: Sorry, I didn't
16 know whether I was on or off.

17 CHAIRMAN MELIUS: It's okay. I
18 can't tell half the time myself.

19 DR. MAKHIJANI: Yes. We were only
20 asked to kind of look at U.S. Testing petition
21 '87 to '89. I agree with Stu. It's a very
22 restricted SEC petition to a certain part of

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1 the 200 area.

2 And we have looked at it. I read
3 the Evaluation Report and looked at the
4 petition and Joyce did too. And we're aware,
5 of course, that NIOSH has said that they can
6 reconstruct doses despite the quality issues
7 that were raised.

8 And, Joyce, did you want to make a
9 comment? I mean, at the present time, we
10 haven't done an analysis or research. We've
11 just kind of looked at it, and --

12 CHAIRMAN MELIUS: Yes, which is all
13 we asked you to do.

14 DR. MAKHIJANI: Yes, and that's all
15 we've done.

16 CHAIRMAN MELIUS: Yes.

17 MEMBER SCHOFIELD: I have one just
18 quick question on 155. There's -- how they
19 propose to isolate those people who would be
20 covered under 155, given the fact that people
21 did go in and out of this area during those
22 time frames?

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1 COURT REPORTER: This is the court
2 reporter. Who was just speaking?

3 MEMBER SCHOFIELD: Phillip
4 Schofield.

5 MR. HINNEFELD: Sam, this is Stu.
6 And I'm not entirely sure I understand the
7 question. The petition speaks to the quality
8 of certain bioassay, and I believe it actually
9 petitions for bioassay from a particular
10 facility. Is that right, Sam?

11 DR. GLOVER: That is correct. They
12 specifically asked for people who actually
13 received bioassay at the plutonium finishing
14 plant, urine or fecal measurements.

15 MEMBER SCHOFIELD: So that would be
16 --

17 MR. HINNEFELD: The petition sort
18 of defines who would be included in it, if the
19 evaluation and the petition is ultimately
20 successful. So it sort of defines that group,
21 and it's an analytical basis: you know, was
22 the analysis any good.

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1 So then, I guess, the carry-on
2 question would be, are those analyses as a co-
3 worker for anybody else? And that would maybe
4 have more far-reaching things. And we'd have
5 our normal issue of, what can we know about
6 that.

7 CHAIRMAN MELIUS: Right.

8 MR. HINNEFELD: So we're a little
9 preliminary, I think, to be getting into those
10 kind of discussions on 155, though.

11 CHAIRMAN MELIUS: Yes. Phil, I
12 think that is sort of the next step. I think
13 first we have to evaluate the basis for 155,
14 and then worry about the Class Definition, so
15 to speak, if it's -- depending on the
16 findings.

17 So I think it's hard to speculate
18 right now what the -- how we would handle
19 that. Does that make sense?

20 MEMBER SCHOFIELD: Yes, it does,
21 actually.

22 CHAIRMAN MELIUS: I know that we

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1 clearly have ended up with -- the earlier SECs
2 at Hanford ended up with broader Class
3 Definitions, but we really don't know here
4 until we reach that point in the evaluation
5 process for this.

6 What I would suggest, based on this
7 conversation for 155, that we need to go ahead
8 and task SC&A to move ahead on that. And what
9 I will do is, I will come up with a suggested
10 tasking and talk to the other Work Group
11 Members when we're out in Hanford next week,
12 and I think we can reach agreement on that.
13 We can be able to move forward with that
14 process.

15 Is that satisfactory to Paul and
16 Phil?

17 MEMBER SCHOFIELD: Yes, it is with
18 me.

19 CHAIRMAN MELIUS: Paul?

20 MEMBER ZIEMER: Yes, I'm fine with
21 that. That makes sense.

22 CHAIRMAN MELIUS: Good. Okay, we

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1 can do that. The final item on our agenda for
2 this call was the update for the August Board
3 Meeting, and because we are scheduled to give
4 an update just prior to the public comment
5 period there, and I don't know whether NIOSH
6 had any plans for doing an update along with
7 that.

8 I don't have the Board's agenda in
9 front of me, so I can't recall what was on
10 that agenda. But Stu, Jim or Sam, do you --
11 were you planning on doing a presentation
12 there?

13 MR. HINNEFELD: I'm looking at it
14 now. Sam, were you planning to say anything
15 there?

16 DR. GLOVER: I was going to be
17 silent unless otherwise asked to talk.

18 MR. HINNEFELD: We can speak -- at
19 this point, we could speak to whatever you
20 would like us to.

21 CHAIRMAN MELIUS: Okay. What do
22 you think about talking about, sort of, what

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1 your ongoing work has been?

2 MR. HINNEFELD: Sam, you can do
3 that, right?

4 CHAIRMAN MELIUS: I mean, just very
5 briefly and very generally. Is that --

6 DR. GLOVER: I can certainly -- we
7 can certainly speak to that. Would you like -
8 - Stu, would you like that done in the very
9 brief PowerPoint presentation?

10 MR. HINNEFELD: What's the pleasure
11 of the Work Group?

12 CHAIRMAN MELIUS: Yes, what I was
13 thinking is that we'd have the -- Sam, sort of
14 a presentation, what's NIOSH doing. Again,
15 this is five to ten minutes. And then I would
16 follow, as the Work Group Chair, with a short
17 presentation, this is where the Work Group
18 stands in respect to these ongoing issues at
19 the site.

20 MR. HINNEFELD: You can do that,
21 right Sam?

22 MEMBER ZIEMER: Dr. Melius?

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1 CHAIRMAN MELIUS: Yes?

2 MEMBER ZIEMER: Ziemer here. I
3 like the suggestion. I was going to offer one
4 slight variation. It seems to me it would
5 makes sense for the Chair to summarize what we
6 did in the session today and then call on
7 NIOSH to summarize what their path forward is
8 on these issues.

9 So it would be just the reverse, I
10 think, of what you're talking about, and
11 that's --

12 CHAIRMAN MELIUS: Yes, and either
13 way would work.

14 MEMBER ZIEMER: Sure.

15 CHAIRMAN MELIUS: I agree with you,
16 Paul. We can do that.

17 DR. MAKHIJANI: Jim, did you want
18 me to make you some slides based on the
19 outstanding SEC issues, according to our
20 report, anyway?

21 CHAIRMAN MELIUS: Yes, that would
22 be -- if we could have a few slides on that,

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1 that would be helpful.

2 DR. MAKHIJANI: Sure. I'll do
3 that.

4 MEMBER ZIEMER: Ziemer again. Let
5 me suggest that we not cover all of the
6 issues.

7 DR. MAKHIJANI: No, no. That's why
8 I said -- you know, there are a number of
9 issues that are --

10 MEMBER ZIEMER: You might just
11 summarize the kinds of issues or something in
12 a few bullet points. But let's not go through
13 them all.

14 DR. MAKHIJANI: Yes, right. It is
15 a pretty complicated report, but Hanford is
16 such a complicated site.

17 MEMBER ZIEMER: Right.

18 CHAIRMAN MELIUS: But believe me,
19 Paul, I would quickly defer to Arjun on that.

20 (Laughter.)

21 MEMBER ZIEMER: I don't want you to
22 even do that.

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1 CHAIRMAN MELIUS: No, I meant I'd
2 tell anyone with questions, see Arjun in the
3 back.

4 MEMBER ZIEMER: Oh, okay.

5 CHAIRMAN MELIUS: That would be --
6 that's not fair to the people there, to take
7 up that much time trying to --

8 MR. KATZ: Jim and Ted, this is --
9 I mean, this is Ted, Jim.

10 CHAIRMAN MELIUS: Ted talking to
11 himself.

12 MR. KATZ: Just to remind you,
13 Arjun, for your part, and for Sam's part, the
14 whole session is only 15 minutes long.

15 DR. MAKHIJANI: Oh, okay. All
16 right.

17 CHAIRMAN MELIUS: Okay. That was
18 what part I remember, and it was, like, five -
19 - so I was suggesting the NIOSH part be five
20 or ten. So essentially, why don't we plan on
21 splitting the 15 minutes, and definitely not
22 exceeding it?

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1 DR. MAKHIJANI: Now, Jim and Ted,
2 did you -- we didn't have an instruction to
3 send the reports for PA review. Should we
4 send the matrix, at least for PA review?

5 MR. KATZ: We don't automatically
6 put matrices through PA review, but it might
7 make sense, given that this is -- I don't
8 know. That can't be done that quickly, I
9 don't think, necessarily, but I'd have to look
10 at them.

11 But in this case, given it's been a
12 long time and this is sort of preamble to the
13 path forward and all that, it might make sense
14 to do that, to ask for PA clearance on this.

15 DR. MAKHIJANI: Okay. I'll send an
16 email to Nancy after this.

17 CHAIRMAN MELIUS: Okay. Good.

18 DR. GLOVER: If it pleases the
19 Board, because of the short time, I really
20 won't be able to formulate a path forward;
21 just maybe what were all the action items. I
22 will very quickly speak to what we have done

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1 and say that we will take into account this as
2 we develop our action plan. I would hesitate
3 to say that this is our definitive path
4 forward, but I will --

5 CHAIRMAN MELIUS: That's fine.
6 That's not -- not expecting. But I guess I
7 think it's important that we say that there is
8 -- developing a path forward, a specific path
9 forward and that work is ongoing.

10 Good. Any other Hanford issues
11 that any of the Work Group Members want to
12 bring up or NIOSH or SC&A?

13 MEMBER ZIEMER: No.

14 CHAIRMAN MELIUS: If not, I believe
15 we can adjourn the Work Group meeting. And I
16 guess we'll see most everybody out in Hanford
17 next week.

18 (Whereupon, the above-entitled
19 matter went off the record at 3:50 p.m., EDT.)
20
21
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