

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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IDAHO NATIONAL LABORATORY/ARGONNE NATIONAL
LABORATORY-WEST WORK GROUP

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THURSDAY
SEPTEMBER 8, 2016

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The Work Group convened via teleconference at 10:30 a.m. Eastern Time, Phillip Schofield, Chairman, presiding.

PRESENT:

PHILLIP SCHOFIELD, Chairman
JOSIE BEACH, Member
JAMES M. MELIUS, Member
GENEVIEVE S. ROESSLER, Member

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ALSO PRESENT:

TED KATZ, Designated Federal Official
NANCY ADAMS, NIOSH Contractor
BOB BARTON, SC&A
RON BUCHANAN, SC&A
PETE DARNELL, DCAS
MITCH FINDLEY, ORAU Team
BRIAN GLECKLER, ORAU Team
STU HINNEFELD, DCAS
JENNY LIN, HHS
JOHN MAURO, SC&A
AMY MELDRUM, SC&A
JIM NETON, DCAS
STEVE OSTROW, SC&A
JOHN STIVER, SC&A
TIM TAULBEE, DCAS

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10:29 a.m.

Welcome and Roll Call

MR. KATZ: Welcome, everybody. This is the Advisory Board on Radiation and Worker Health. It's the INL/ANL-West Work Group. I think this is not a very long meeting today, but we're trying to address some priorities.

The agenda for the meeting is posted on the NIOSH website under the Board's schedule of meetings section, today's date. The agenda is there. There are not other materials to go with it because there have not been other materials distributed. But for anyone on the line who might be interested, one of the things we're talking about today is priorities with respect -- I think we're talking about today -- is priorities with respect to doing studies of reactors and feasibility of dose reconstruction for the different reactors with the current methods that we have.

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1 And the two papers related to that were
2 brought up and discussed, briefly at least, at the
3 last INL Work Group meeting, which was back on, I
4 think, August 4th, I believe -- 2nd or 4th. So if
5 you want, you can go on that NIOSH website for that
6 date, schedule of meetings, and those papers are
7 posted, not that I would expect people to read them
8 as we're having the discussion, but they are there
9 afterwards if you're interested in those papers.
10 There is one from NIOSH, and there is one from SC&A.

11 So with that all said, then, let me just
12 get into roll call. And let's begin with Board
13 Members now. Everyone else, please speak to
14 conflict of interest. My Board Members don't have
15 conflicts for this site, so I'll just say that to
16 them. But let's see who is on the line.

17 (Roll call.)

18 MR. KATZ: Alright. So that takes
19 care of things. We have a lot of staff and so on
20 on the line, so please everyone remember to mute
21 your phones, except when you're addressing the

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1 group, and *66 to mute your phones.

2 And Phil, it's your meeting.

3 CHAIRMAN SCHOFIELD: Okay. As far as
4 the reactors go, I would like to here start off with
5 SC&A and their response to the White Paper that was
6 put out by NIOSH on the prioritization of OTIB-54
7 evaluation.

8 **NIOSH and SC&A Updates on Current Activities**

9 MR. STIVER: Okay. This is John
10 Stiver. I guess I can kind of lead off and let
11 Steve kind of jump in.

12 We are basically finished with a
13 response paper to NIOSH's concerns that Tim raised
14 at the earlier meeting. And we've also, in
15 conjunction with that, done a comparison, you know,
16 checked on the claimant, the NOCTS website and so
17 forth, to identify the numbers of personnel and,
18 basically, the dose ranges that they would have
19 been subjected to over periods of time for the
20 different reactors of concern.

21 Steve, I guess you could kind of give

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1 a little cameo about that. Before he does, though,
2 I can say it is -- you should have a copy of it,
3 you know, should have it for the Work Group,
4 probably sometime next week.

5 DR. OSTROW: Okay. Hi, this is Steve.
6 We pretty much finished our paper, as John was
7 saying. It just has to go into final editing and,
8 you know, clearance, et cetera, et cetera, et
9 cetera, but it should be with the Work Group
10 shortly.

11 Just a little bit of quick history, if
12 people don't remember these things. We had put
13 out, in June and July, an INL Reactor
14 Prioritization Report and an ANL-West Reactor
15 Prioritization Report, two separate reports, with
16 our thoughts on what priority NIOSH should address
17 some detailed issues we've had with the
18 applicability of OTIB-54 to model reactors.

19 NIOSH subsequently, on July 28th,
20 issued a proposal -- Tim Taulbee put it out -- a
21 proposal responding to our report on what the

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1 reactor priorities should be. And they presented
2 it at the last Work Group meeting, which was August
3 2nd. And they had made the good suggestion to
4 consolidate the INL and ANL-West reactors, since
5 it's basically the same type of technical work they
6 would be doing for all the reactors and no sense
7 in keeping it separate.

8 And they had made I think it was eight
9 recommendations altogether. In some cases, they
10 accepted our list of prioritization, our high
11 priorities. In a few cases, they didn't think that
12 it was correct, and in a few cases, they had sort
13 of a compromise.

14 At the August 2nd Work Group meeting,
15 the Work Group asked SC&A to respond to NIOSH's
16 report. And this would basically set the
17 blueprint for how NIOSH would go ahead and evaluate
18 the reactors, you know, according to OTIB-54, which
19 would require apparently a lot of technical work
20 using the ORIGEN code, et cetera, et cetera.

21 The Work Group also asked SC&A, in

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1 addition to considering the technical aspects and
2 neutronics, to also look at what's the potential
3 for radiation exposure of personnel. You know,
4 you can have an extreme case with a reactor that
5 is way outside the bounds of OTIB-54, but the
6 potential for exposing personnel is very low, so
7 that shouldn't be given a high priority. On the
8 other hand, you might have another reactor, at the
9 other extreme, which is outside of OTIB-54, but not
10 tremendously, but it had a big potential for
11 exposing people, so that might be given a higher
12 priority.

13 So we did our report. It's unfortunate
14 we didn't get it to you before this meeting. In
15 two parts. I took a look at NIOSH's proposals with
16 respect to the neutronics. And Bob Barton went
17 ahead and did a deep dive looking at dosimetry
18 records, et cetera, to see what the potential was
19 for exposure of personnel.

20 And in our response in this report,
21 which you don't have in front of you, we agreed with

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1 the NIOSH with some of the cases, and we disagreed
2 with some of the other ones, some of their
3 proposals.

4 So, I don't know if it's really proper
5 at this time -- and John, you can weigh in. I could
6 give results over the phone right now, but we didn't
7 actually finalize the report yet, and the Board
8 does not have it in front of them. What do you
9 think about that? Should I actually just read off
10 the results?

11 MR. KATZ: Can I -- this is Ted.

12 DR. OSTROW: Ted, yeah.

13 MR. KATZ: Maybe, if the Work Group
14 Members don't object, I can make a suggestion. I
15 think, right, no one has it in front of them, but
16 I think this would be then an opportunity still,
17 if you can explain things with sufficient detail,
18 maybe it is an opportunity for NIOSH to get
19 clarification on matters that may not be clear to
20 them, and that may save some time down the road.
21 I don't know. It depends on how complicated all

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1 of this is, but that's --

2 DR. OSTROW: No, our summary response
3 is -- we have one of our tables, Table 5, which I
4 have in front of me, actually. And I could go
5 through the eight NIOSH recommendations and our
6 response, and our responses are fairly short. I
7 mean, I think could cover the whole thing in about
8 15 minutes, probably, or 10 minutes.

9 MR. KATZ: Yes, we have the time,
10 Steve, unless the Work Group Members don't want to
11 go down this road.

12 MEMBER MELIUS: Well, this is Jim
13 Melius. While I don't have any objections to
14 hearing a summary of it, I'm not about to make any
15 recommendations or any decisions until I've seen
16 a report.

17 MR. KATZ: Right, and I wasn't --

18 MEMBER MELIUS: And so that should be
19 understood, and I don't want to get into a long
20 debate about, you know, results. And, frankly, I
21 think NIOSH should have the opportunity to also see

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1 this report, so that, before we can discuss
2 anything in terms of priorities on reactors, I
3 think both NIOSH and the Work Group need an
4 opportunity to review the report.

5 MR. KATZ: Right. And just to be
6 clear, Jim, I wasn't suggesting anything
7 otherwise. I was just -- sometimes, whichever
8 side, SC&A or NIOSH, they need clarifications about
9 how one got to whatever conclusion one got to, and
10 sometimes it's a good way to do it.

11 MEMBER MELIUS: No, I wasn't objecting
12 to doing it, I just wanted it understood up-front
13 that we weren't going to -- I wasn't prepared to
14 act on this.

15 MR. KATZ: Right.

16 DR. TAULBEE: This is Tim Taulbee. I
17 do have a question along the lines of what you're
18 talking about, Ted, because I do have some
19 confusion on the reports that had come out
20 previously. I saw John Stiver sent an email
21 earlier this week, and it was bringing up some of

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1 the MTR concerns, as well as Initial Engine Test
2 #10, and I guess you were correct, or partially
3 correct, in your email, John, that we, NIOSH,
4 didn't address those as part of our response. And
5 that was because I was under the, I guess,
6 misunderstanding that the Reactor Prioritization
7 Rev. 1 was the final for INL, and the ANL one was
8 the final for ANL. So we were just working off of
9 those two reports and had not gone back to that
10 November report.

11 And so my question is, this next report
12 that you guys are coming out with with all of this
13 rolled together, does it combine all three of those
14 reports from SC&A, or is it just the most two recent
15 ones?

16 **Work Group Discussion: Priorities/Plans**

17 **Reactor Studies and/or Other Activities**

18 DR. OSTROW: Tim, the report that we
19 have right now that we're working on just has the
20 two latest reports. It doesn't include the one
21 that I had done on TRA, where we looked at a few

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1 of the reactors, and the one that John Mauro did
2 on TAN. It does not include all of that in it
3 because I think the way it evolved is that, after
4 we did the TRA and the TAN reports, we were told
5 by the Work Group, whatever, we decided to go ahead
6 and look at the reactors that weren't included in
7 those two earlier reports, so there might have been
8 a little confusion here.

9 And to tell you the truth, what happened
10 is that, when I was writing this latest report, it
11 dawned on me, you know, it sort of occurred to me,
12 jogged my memory, that we had those two earlier
13 reports where we addressed some TRA- and
14 TAN-specific issues. And I had written an email
15 to John Stiver just to, you know, sort of put it
16 on the table that we should also figure out, since,
17 you know, today we're figuring out where we're
18 going to go forward, that this shouldn't fall
19 through the cracks, it should be addressed
20 somewhere. So that's a little bit what happened.

21 DR. TAULBEE: But could I ask that that

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1 get rolled into this report so that we have a kind
2 of complete finalization? Because they all are
3 kind of similar here of how we are applying OTIB-54,
4 and so I'd love to hear what the Work Group's
5 priority is for addressing all of them, not just
6 these last two, but also those previous two reports
7 from November.

8 DR. OSTROW: That would be okay with
9 me. It would delay our getting out the latest
10 report by a few days to roll it into it. John
11 Stiver, what do you think?

12 MR. STIVER: You know, to the extent
13 that it kind of puts everything on the table in the
14 one report, as opposed to having to deal with the
15 time lag and the types of things that were going
16 on since last year, it would probably be -- I think
17 it'd be better to just go ahead and roll them all
18 into one.

19 DR. OSTROW: Okay. So just to be clear
20 with the Work Group, this will probably delay
21 things like a week or two.

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1 MEMBER ROESSLER: This is Gen. I
2 think it would be worth the time to do it that way.

3 DR. OSTROW: Okay.

4 MR. KATZ: Okay, Steve, go ahead.
5 Thank you.

6 CHAIRMAN SCHOFIELD: I have no
7 objection to that.

8 DR. OSTROW: Okay. Okay, so we'll go
9 ahead and do that. We have the two original
10 reports, so we should be able to roll it in. It's
11 just a question of, you know, rewriting and
12 formatting a little bit so it all hangs together.

13 Alright. So let me just go now, just
14 for future reference, this is Table 5 of our latest
15 report that people haven't seen. And we respond
16 to NIOSH's eight points and their recommendations.

17 The first one is simple: NIOSH proposed
18 merging INL and ANL-West high priority category
19 reactors for the evaluation of OTIB-54
20 applicability. So, we concur with that. That
21 will roll them all together.

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1 Okay. Number two, NIOSH proposes that
2 the Loss-of-Fluid Test Facility, LOFT, be removed
3 from consideration for evaluation of OTIB-54
4 applicability at this time due to nuclear
5 operations not commencing until December '78.

6 And our response is -- I have to read
7 our response here. Okay. SC&A recognizes that
8 the first five LOFT experiments were non-nuclear
9 thermal hydraulic experiments, and the potential
10 for radiation exposure did not occur until December
11 '78, which is after the INL SEC period.
12 SC&A believes that, given this facility's size,
13 long operating history, beyond-design-basis
14 operating scenarios, and potential to have exposed
15 a significant number of personnel, the LOFT reactor
16 merits a more detailed examination with respect to
17 whether it can be adequately modeled by OTIB-54,
18 and such an examination could be conducted as a Site
19 Profile exercise.

20 So, this is just to keep track of it.
21 Perhaps it's not an SEC issue because it's outside

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1 the time period, but we shouldn't lose this, the
2 LOFT reactor. We should make a note somewhere,
3 wherever we make notes on these things, that it
4 might be a Site Profile issue. I'm not sure how
5 we deal with that.

6 DR. TAULBEE: This is Tim. Could I
7 interject here for a second?

8 DR. OSTROW: Yes.

9 DR. TAULBEE: I fully agree, and I
10 think the Work Group can easily move this to a TBD
11 issue to be revisited once we get the SEC closed
12 up. And so it can certainly be added to the TBD
13 issue, which, to me, is where it should be.

14 DR. OSTROW: Yeah, I agree. I just
15 want to make sure that we have a good mechanism that
16 we don't lose these things somewhere.

17 DR. MAURO: This is John Mauro. I
18 think I'd like to also add another dimension to this
19 discussion. I know we're making segregations
20 between TBD and SEC issues, and this LOFT
21 discussion is a good example of something that I

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1 sort of had on my mind.

2 I think there's general agreement that
3 we are really immersed in a process regarding
4 reactors now where when OTIB-54 could be used in
5 a claimant-favorable way, and times when perhaps
6 it can't. And we've got a long list of reactors
7 that we're looking at and selecting for more
8 detailed consideration.

9 The fact that we will refer to this,
10 let's say, LOFT discussion now as a Site Profile
11 issue implies that if you cannot use OTIB-54, there
12 are other ways of dealing with this. Am I correct
13 in presuming that the implications are that when
14 you do have a unique circumstance where 54 doesn't
15 give assurance you could get a claimant-favorable
16 result, the solution is to actually run ORIGEN and
17 not use the default set of OTIB-54 mixes, but come
18 up with a mix that applies to that particular
19 reactor?

20 I ask the question because if it's the
21 general consensus that that is your solution and

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1 that it will work, the implications are, yes, the
2 doses can be reconstructed, but they have to be
3 dealt with on a case-by-case basis because of the
4 unique nature of each reactor.

5 So, on that basis, if that's the general
6 sense that, yes, it is a manageable, tractable
7 problem, then I would agree that, okay, we're
8 dealing in Site Profile space. And I guess I would
9 like to get a sense from folks if I'm thinking about
10 this correctly. That is, it is a manageable
11 problem. Just because you can't use OTIB-54
12 doesn't mean you can't reconstruct doses.

13 DR. TAULBEE: This is Tim. That is
14 correct, John. However, I wouldn't rule out, if
15 we were to do this and we did run into some other
16 unique problem, if for some reason ORIGEN didn't
17 work for the reactors along this line, or something
18 along those lines, there is still another avenue,
19 and that's the 8314 process for there. So there
20 are other issues along that line. I guess my
21 current focus is trying to close out the current

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1 SECs. And so as long as you don't lose that this
2 evaluation needs to be done, I would like to propose
3 that we just move it to the TBD to address after
4 we get the SEC buttoned up.

5 DR. MAURO: And I appreciate the
6 answer, and I agree. As an 8314 solution, on those
7 rare occasions when that might emerge, that does
8 bring us into SEC space.

9 DR. TAULBEE: It does, but it brings us
10 in through a different avenue.

11 DR. MAURO: Okay. Okay.

12 MR. STIVER: This is Stiver. I'd like
13 to interject something at this point. I think that
14 we're --

15 MR. KATZ: Just before you do, someone
16 is typing rapidly. Can you just mute your phone?
17 Because it is pretty loud, at least on my end.
18 Thanks.

19 MR. STIVER: Anyway, I was just saying
20 there were two areas that really we thought were
21 more related to data adequacy and completeness,

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1 which kind of comes to bear more on the SEC side
2 of the house. And, you know, I think Josie had sent
3 around this one-page memo a little earlier, a
4 couple weeks ago, to the rest of the Work Group.

5 One was the Chemical Processing Plant
6 in years pre-1963, and the other was Burial
7 Grounds. And then the other aspect in what we're
8 talking about here with the reactor modeling really
9 has to do with technical feasibility. And these
10 are things like, you know, Hans's paper on general
11 air versus breathing zone sample applicability
12 with 54 and the reactors that we're talking about
13 now. And then some of the follow-on investigation
14 which Ron was doing about, you know, it wasn't the
15 data that are out there and content and so forth
16 actually comport well with OTIB-54 predictions.

17 And those can really go either way.
18 They're an SEC, as Tim was saying, with an 8314 type
19 of solution, or could be deemed to be Site Profile
20 issues, depending on, you know, what the findings
21 are from those investigations. So, I feel like

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1 we're sort of jumping around a little bit here, but
2 just to kind of set the table, you know, the big
3 picture here.

4 (Pause.)

5 MR. STIVER: But anyway, go ahead.
6 Continue.

7 DR. OSTROW: Okay. So we're up to
8 NIOSH's recommendation number three. NIOSH
9 agrees with us that the OMRE reactor -- that's the
10 Organic Moderated Reactor Experiment, OMRE --
11 should be evaluated for OTIB-54 applicability due
12 to its unique moderator and coolant.

13 And so we agree with NIOSH agreeing with
14 us. And we added that after Bob Barton did his
15 looking at dosimetry records, there appears to be
16 a significant potential for exposure of hundreds
17 of regular workers and visitors. We have a lot of
18 data on that, and there was a lot of people that
19 could potentially have been exposed to OMRE. So
20 we are in agreement, NIOSH and SC&A.

21 The number four, NIOSH's

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1 recommendation number four: NIOSH agrees with us
2 that the Power Burst Facility, PBF, should be
3 evaluated for OTIB-54 applicability due to the use
4 of ceramic fuel. And we agree with NIOSH's
5 agreement and note that also, based on the limited
6 data available -- we only had a few years of -- we
7 only had data for the first few years of operation
8 of the Power Burst Facility -- there appears to be
9 potential exposure for mostly less than 100 regular
10 workers and visitors. I think only one year we
11 went over 100, but the rest were, a few of them,
12 100. So, for Power Burst Facility, we agreed to
13 be evaluated.

14 Next one is item five, NIOSH's
15 recommendation five. This has to do with the SPERT
16 reactor test. That's the Special Power Excursion
17 Reactor Test, and there were several of them.
18 NIOSH proposes that a model for the most extreme
19 experiment from all the SPERT tests, in terms of
20 possible departure from OTIB-54, be used to
21 represent the bounding case to cover all four SPERT

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1 reactors.

2 So NIOSH is basically proposing, look
3 at all the experiments that were done -- use that
4 for detailed analysis with ORIGEN. We disagreed
5 with NIOSH's recommendation. We said that
6 although the four SPERT reactors were all part of
7 the same series of reactor experiments that
8 subjected the reactor system to large reactivity
9 excursions, we still think that the reactors
10 differed significantly from each other and should
11 be examined separately, and perhaps by choosing the
12 worst case for each reactor.

13 So, rather than having one worst case
14 for all the SPERT reactors, we are suggesting that
15 it might be better to look at the worst case for
16 each individual reactor. And we just make a little
17 addition that whatever NIOSH decides to do, that
18 when they write it up, they should have, you know,
19 sufficient detail justifying how they picked what
20 they thought the bounding case was.

21 Tim, do you have any comments on that?

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1 DR. TAULBEE: No, not at this time. I
2 would like to read your --

3 DR. OSTROW: Yes, of course, of course.
4 But yeah, you sort of agree that, whenever you make
5 choices like this, you need sufficient -- in the
6 report, you know, sufficient backup why you chose
7 a particular case as the worst case.

8 DR. TAULBEE: No, that part I fully
9 agree with.

10 DR. OSTROW: Yeah, that's just a
11 general comment, yeah.

12 DR. TAULBEE: Yeah, it's more of the
13 differences of the reactor designs as your basis
14 that I really want to look at.

15 DR. OSTROW: I understand, got to look
16 at it more carefully. And we might be wrong too,
17 you know. If you come back with, you know, a fuller
18 discussion why you think you can bound it with only
19 one case, then we will look at that too.

20 DR. TAULBEE: Okay.

21 DR. OSTROW: Number six NIOSH

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1 recommendation is related to the Boiling Water
2 Reactor Experiment, that is, BORAX. And NIOSH
3 notes correctly that the BORAX experiments I, II,
4 and III all ceased operations before the end of the
5 SEC period for ANL-West. So NIOSH proposes that
6 BORAX I through III be removed from the
7 consideration for evaluation of OTIB-54
8 applicability as their operating years are covered
9 by the SEC period, and bioassay data is known to
10 be incomplete and the infeasibility to reconstruct
11 doses has already been established.

12 Okay. So, that was the NIOSH
13 assessment. And NIOSH agrees that BORAX-IV, which
14 is within the period, should be evaluated for
15 OTIB-54 applicability due to its use of
16 uranium/thorium oxide fuel.

17 But then NIOSH proposes that BORAX-V be
18 removed from consideration for evaluation of
19 OTIB-54 applicability. It's a very similar
20 configuration to BORAX-IV, but it just added a
21 steam superheating section, which we agree

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1 shouldn't really affect the neutronics of the
2 reactor.

3 So, in short, we agree with NIOSH with
4 respect to the BORAX reactor experiments.

5 NIOSH's recommendation seven, this has
6 to do with the Experimental Breeder Reactor I,
7 EBR-I. And EBR-I had several different cores that
8 were tested over the years, and NIOSH proposes that
9 the most bounding of the last two EBR-I cores be
10 used. While it was initially believed that the
11 plutonium core would be bounding, some preliminary
12 modeling would be needed to be performed on all four
13 cores to confirm this.

14 So, we agree with NIOSH. And we just
15 note that, when we looked at the occupancy, that
16 several hundred workers and visitors were present
17 during the period of operation for the Mark IV core.
18 That's their last core that we had data for. So,
19 we agree.

20 The last recommendation by NIOSH, this
21 has to do with Experimental Breeder Reactor II,

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1 EBR-II. And NIOSH agrees with SC&A that EBR-II
2 should be evaluated. And we note, based on our
3 additional study, that several hundred workers and
4 visitors could have been exposed each year. And
5 in some years, the average worker-penetrating
6 doses were greater than 100 millirem. So we're
7 just basically in agreement with NIOSH.

8 So I think when NIOSH looks at our
9 report, we're in agreement with most of the
10 recommendations. There's a few that are up for
11 discussion. And as we just discussed a few minutes
12 ago, we're going to also roll in now the summaries
13 of the two earlier reports we had from TRA and the
14 TAN reports. So, as Tim suggested, this will be
15 convenient. All the reactors will be in one place,
16 and NIOSH can make its plan for how they're going
17 to address things all working off one report.

18 So, that's it. I am done.

19 (Pause.)

20 CHAIRMAN SCHOFIELD: Tim or anybody
21 have any comments on these?

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1 DR. TAULBEE: The only comment I have
2 is thanks, Steve, for going over that. That does
3 help, and I look forward to seeing the report.

4 DR. OSTROW: Okay. Very good. I just
5 want to make a separate comment.

6 I just want to praise Tim a little bit
7 here in the Work Group meeting. Tim came out a few
8 days ago with the INL Facility Quick Reference
9 Guide, which I think he did because the Board wanted
10 something like this. It's really, really good.
11 It has great illustrations, it's a great summary
12 of all the different reactors, and it impressed me
13 where you can jump from one section to the other
14 just by clicking on things, you know, hyperlinks.
15 So I just want to say, nice job, Tim.

16 MEMBER ROESSLER: This is Gen.
17 Thanks. Am I off mute?

18 DR. OSTROW: Yeah, we can hear you,
19 Gen.

20 MEMBER ROESSLER: Okay. I appreciate
21 your saying that, Steve. I think I'm responsible

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1 for suggesting this, and --

2 DR. OSTROW: Okay. Good job, Gen,
3 then.

4 (Laughter.)

5 MEMBER ROESSLER: Well, initially, I
6 thought maybe a simple matrix would do it, a couple
7 pages in Excel, but I can see now that would not
8 have worked at all, probably. This was really
9 creative and very well done. I find it very
10 useful. And I think, maybe from a Work Group
11 Member point of view, this sort of thing is useful
12 because we have other things we do most of our
13 lives, and we come into this on occasion, and we
14 have to get up to speed on everything, on a site.
15 And with a large site like this, this is just
16 extremely useful to just, bingo, you get right back
17 into it. So, thanks, Tim.

18 DR. TAULBEE: You are quite welcome,
19 and thanks for all of the good comments on that.

20 I do have one question, I guess, for the
21 Work Group. Do you want this to be, I guess,

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1 available to the public type of standpoint, that
2 we should go ahead and go forward with the way it
3 is? Or are there other comments that people have
4 on it? Well, I guess I'm looking for feedback from
5 you all.

6 MEMBER ROESSLER: I'll chime in again,
7 and I hope to hear from others, too. You asked does
8 this summary have enough information in it, and I
9 think it does. Certainly, one of the pluses of it
10 are the photos. I think that helps a lot. It is
11 also very, very useful to click back and forth, as
12 Steve said.

13 Whether it should be made available, I
14 would say yes, if it's not too time-consuming. It
15 does need a few edits, but I think we have to leave
16 that up to -- well, maybe others want to chime in
17 to evaluate whether it's worth that much time.

18 DR. OSTROW: This is Steve. I think
19 it's really going to be useful. I'd just suggest,
20 if you're going to make it public, that you just
21 mention somewhere that if people want more

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1 information, they should consult Susan Stacy's
2 Proving the Principle tome, which has great detail
3 on the whole history of INL. You know, just
4 mention that somewhere.

5 DR. TAULBEE: Okay.

6 CHAIRMAN SCHOFIELD: Has this been
7 checked to make sure there's nothing that could
8 present any problems from the standpoint of
9 classification? I mean, I've looked at it, but I
10 mean, if we were to put this out for the public.

11 DR. TAULBEE: Well, it has to go
12 through that review as well as a PA review. Some
13 of the photos that are in there do show some
14 people's faces. I think those have to be blurred
15 out. And so I think there are some -- well, there
16 is some additional work.

17 If the Work Group wants to keep it for
18 their own personal -- or for their own use, which
19 is what it was intended for, that's fine. I think
20 it is good the way it is. But if you did want it
21 to go out further, then there is 508 compliance and

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1 other things that have to be done to it. So I was
2 looking for feedback as to what you all want to do
3 with that document.

4 MEMBER BEACH: Tim, this is Josie. I
5 have glanced at it but haven't had an opportunity
6 yet this week to really read it, so I'm going to
7 withhold any comments at this time.

8 DR. TAULBEE: Alright. That's fine.

9 CHAIRMAN SCHOFIELD: My question is,
10 how much time and effort would it take to polish
11 this up? And how much would be lost in order to
12 send it out to the general public? If that's going
13 to take a lot of time and effort and money, I would
14 be inclined to not put it out. Maybe at a later
15 date, but at this time, with the number of
16 priorities we have, number of things we're looking
17 at, I kind of hate to commit too much time to it.

18 DR. TAULBEE: Okay. Yeah, it will
19 take time in order to do those things that I talked
20 about. So, yeah, how much time? I don't have a
21 good feel. I don't know all of the 508 compliance

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1 type of things that have to be done to it. Sorry
2 I can't give you a better estimate of the level of
3 effort to fix that. I'd have to get with some other
4 folks to find that out.

5 CHAIRMAN SCHOFIELD: I just feel there
6 are higher priorities at this time.

7 DR. TAULBEE: Okay. I concur.

8 CHAIRMAN SCHOFIELD: Anybody else?

9 MEMBER MELIUS: This is Jim Melius. I
10 agree.

11 MEMBER ROESSLER: Go ahead, Jim.

12 MEMBER MELIUS: I'm just saying I agree
13 with Phil and Tim. We have other priorities right
14 now.

15 (Pause.)

16 CHAIRMAN SCHOFIELD: There's a couple
17 of other things that we haven't brought up here.
18 We've been talking about the reactors, but I know
19 we have some interviews coming in November and
20 probably December, some of the fire department
21 personnel. I was wondering if any of the personnel

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1 from the guards or their union are going to be
2 interviewed too, because we have questions about
3 the CPP and, you know, what happened when there was
4 a response from -- I mean, you obviously have a few
5 people that are located nearby. But then again,
6 depending on the issue and, you know, how many
7 personnel are out on vacation or sick leave, et
8 cetera, that would impact bringing people who would
9 not have exchange badges into the area to answer
10 alarms, whether they are fire department or
11 security alarms.

12 DR. TAULBEE: Well, as you mentioned,
13 Phil, we are focusing on the fire department. We
14 have interviewed a couple of security individuals.
15 One of them we want to bring back to ask more
16 specific questions about that. But the most
17 recent interview was with a security individual who
18 indicated that he had badges there at each of the
19 facilities. So, like I said, we will be
20 interviewing at least one other security
21 personnel, but the focus was going to be on

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1 firefighters, so that was kind of the goal.

2 If you want more security guards, we can
3 certainly add a few more to that. I didn't want
4 to infringe too much on -- I believe Joe mentioned
5 to me that you guys wanted to do some more
6 interviews with some more -- I don't know if it was
7 CPP folks or Burial Ground folks -- I think it was
8 Burial Ground. But you're also looking at the
9 matrix, so I was trying to limit I guess our -- we
10 have about 15 interview slots for the week, and so
11 I was trying to limit ours to five to six and leave
12 the rest for Joe and John to decide on.

13 MR. STIVER: Yeah, this is John. I
14 know Joe is interested in trying to run the Burial
15 Ground. Hopefully there are some more people, you
16 know, in that early period, pre-1970 period, that
17 he's interested in looking at.

18 DR. TAULBEE: And Lynn is working on a
19 matrix right now, correct?

20 MR. STIVER: Lynn is about halfway
21 through. As of the day before yesterday, she had

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1 done a little over 30 of I think it was like 70 total
2 that we had already interviewed, just to identify,
3 you know, if there are any stones that have not been
4 turned yet, if there are gaps that we really need
5 to take a closer look at. And as expected, that
6 should be done in a couple of weeks, I would think.

7 So, John, this is Ted. Just a
8 question. Does that matrix give a sort of very
9 brief thumbnail on what topics were covered by the
10 interviewee?

11 MR. STIVER: Right, that's the idea,
12 just to kind of -- there were many different
13 interviewees and to kind of get it altogether in
14 one document where you can really see what topics
15 were covered and what areas that may be, to the
16 extent that there are, additional people out there
17 that they can be interviewed and where we would want
18 to go to really amass them under the economy of the
19 work so that we don't spend a lot of money
20 unnecessarily.

21 DR. TAULBEE: I think we have talked to

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1 enough reactor operators.

2 MR. STIVER: Yes. Yes, exactly.
3 That would be a perfect example.

4 And as I said, that matrix should be
5 finished up here within a couple of weeks, I would
6 imagine. Probably not much longer than that.
7 Certainly enough time to coordinate with Tim and
8 the rest of the NIOSH people for the November
9 interviews.

10 DR. TAULBEE: Should we try to have a
11 technical call?

12 MR. STIVER: Yes, I was just going to
13 suggest that. I think it would be a good idea to
14 have that technical call just to really make sure
15 that we everything lined up appropriately.

16 CHAIRMAN SCHOFIELD: I just have one
17 major question there that I want answered.
18 Obviously, the fire department, depending on what
19 the response is, will not have the time to stop and
20 exchange badges. But I would like the question
21 answered was for all the guards, did they all have

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1 exchange badges there or only a select group that
2 were maybe stationed normally in that area? I
3 don't know how their security system was set up,
4 whether they had, in particular, different zones
5 or did people move from area to area, depending on
6 the workload that they might need more people or
7 what was going on.

8 The fire department, I think that
9 question can be answered there in interviews. But
10 it seems like that particular question has not been
11 answered to my satisfaction, whether all the
12 guards, all security personnel had exchange badges
13 there.

14 DR. TAULBEE: Again, Phil, we can
15 interview some more guards, if you want. The last
16 guard that we interviewed, he indicated that he had
17 a badge at each of the facilities that he went into.

18 But we can certainly interview more.
19 And I do want to interview the one individual was
20 responding on that the night of SL-1. So, he is
21 one of the people we are looking to interview again

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1 because he was a guard at that particular event but
2 we didn't ask him the question the way you were
3 asking it just now. So, I want to ask him that as
4 well.

5 CHAIRMAN SCHOFIELD: Okay. Well, I
6 would be interested in hearing or finding out. And
7 maybe even whoever is -- if you can find some of
8 those people still around, who was in charge of
9 badging and stuff for the entire site. And maybe
10 it broke up between ANL and INL. I don't know.

11 It seems to me they should have some
12 documentation that says yes, everybody who went in
13 that area had an exchange badge, regardless of what
14 area of the site they worked on for like security
15 or did only certain people have those exchange
16 badges.

17 I think this will be addressed
18 adequately, I would hope, during the interview with
19 the fire department. It is just a thought of mine
20 that somebody should have that answer and it should
21 be documented somewhere in their security plans.

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1 Anybody else have any comments?

2 MEMBER MELIUS: This is Jim Melius.
3 Not on that but I have a couple of other issues I'm
4 trying to understand regarding the SEC or potential
5 SEC.

6 As I recall, we still haven't settled
7 on -- there is a number of reserve years after the
8 current SEC for the Chemical Processing Plant and
9 some years before. I believe it is '63 or '64,
10 something like that, before that where there was
11 some uncertainty for that. And I'm just trying to
12 understand where we are in terms of the evaluation
13 of that, both NIOSH and SC&A.

14 DR. TAULBEE: This is Tim with NIOSH.
15 What we are working on is an ER addendum and we are
16 working to get that to the Board -- to the Work Group
17 in early to mid-November, is our current schedule
18 from that standpoint. The three time periods that
19 we are looking at are Test Area North 1961, I
20 believe, up to 1965, where they were working with
21 some uranium. The other two areas, one is the hot

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1 cell ARA-1. This would be 1968, March of 1968. It
2 was a separations of protactinium that was
3 conducted there in a very short time period, like
4 a week type of time period. And then the final one
5 is the retrieval of drums from the Burial Ground
6 in November of 1969. And so those are the three
7 areas that will be addressed in the ER addendum.
8 Those are the reserved areas that we have that we
9 do plan to address.

10 MEMBER BEACH: Tim, this is Josie.
11 That last one, or the second to the last one, the
12 hot cell ARA-1, you said from '68. Is that just
13 for --

14 DR. TAULBEE: It was just in March of
15 1968.

16 MEMBER BEACH: Just that one month,
17 okay.

18 DR. TAULBEE: Yes. When we were doing
19 the ER originally, we ran into these things and were
20 basically running out time to research the details
21 of when it happened and about what happened and so

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1 forth. And we have been able to narrow it down --
2 well, identify it as March of 1968. Well, you see
3 the ER addendum when it comes out.

4 MR. STIVER: Tim, this is John Stiver.
5 Are you going to handle the reserve years at CPP
6 through a different mechanism then, like an 83.14,
7 then, or how is that going to work?

8 DR. TAULBEE: You're talking about the
9 time period post-1974.

10 MR. STIVER: Yes.

11 DR. TAULBEE: Yes, that is going to be
12 handled under an 83.14.

13 MR. STIVER: Okay, I just wanted to
14 make sure I was clear on that. Thank you.

15 DR. TAULBEE: Yes.

16 MEMBER BEACH: So, Tim, what is the
17 priority on that 83.14?

18 DR. TAULBEE: Well, that is one of the
19 reasons I am glad you are all on the call here today
20 because I think there may be some misunderstanding
21 there.

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1 When we last talked the second of
2 August, I guess my marching orders, from the way
3 I understood it, was to work on the -- to finish
4 up the ER addendum, the reserve areas that we have
5 got to get done, and then my original plan was to
6 go on to the 83.14. However, I believe the Work
7 Group and Dr. Melius, I believe you were the one
8 who wanted us to address the air sampling issue with
9 ANL-West next, before that 83.14, before we pursued
10 that. Is that still our marching orders from a
11 priority standpoint?

12 MEMBER MELIUS: That was not -- I just
13 -- as I recall and it is in a transcript someplace,
14 but all I said is I wanted that issue at least left
15 open, the air sampling issue. It is a question to
16 be answered, not necessarily as a higher priority
17 than some other issues.

18 DR. TAULBEE: Okay, I misunderstood
19 you, then. I mean, we wouldn't -- obviously, we
20 wouldn't close one of these issues without a
21 report.

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1 MEMBER MELIUS: Yes.

2 DR. TAULBEE: I mean, it's certainly
3 going to remain open.

4 MEMBER MELIUS: Yes, and as I recall
5 from that meeting, we when sort of got I want to
6 say bogged down but then we went into a long
7 discussion on the reactors and so forth and
8 prioritizing them.

9 I just didn't want the air sampling
10 issue to get -- shut it off completely until it had
11 been evaluated. That was all.

12 So, I would think the reserved area,
13 overall, is higher priority, simply because I think
14 it affects more people.

15 DR. TAULBEE: Okay, so the ER addendum
16 is the reserved area.

17 MEMBER MELIUS: Okay.

18 DR. TAULBEE: Now, the other issue is
19 the 83.14.

20 MEMBER MELIUS: The 83.14, that's
21 right. I'm sorry, yes.

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1 DR. TAULBEE: Okay, the 83.14, which
2 just so everybody is clear on this, we committed
3 that we would look at that time period beyond what
4 the petitioner had originally asked for. And if
5 we found an infeasibility beyond 1975, that we
6 would initiate an 83.14.

7 And what that means is we go through,
8 we do the evaluation much like a regular SEC
9 evaluation. And then if we find an infeasibility,
10 then we find a petitioner and we will then go
11 through and make the recommendation.

12 So, after this reserved area, that is
13 what you want us to address next, correct?

14 MEMBER MELIUS: Yes, that is my
15 preference.

16 MEMBER BEACH: I agree with that.

17 DR. TAULBEE: Okay, that's not a
18 problem.

19 MEMBER BEACH: And then what about the
20 Class Definition question that we have been
21 struggling with? Where are we with that?

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1 MR. BARTON: Yes, hi, Josie, this is
2 Bob Barton. I think I can speak to that.

3 MEMBER BEACH: Hi, Bob.

4 MR. BARTON: I do remember one of the
5 main issues remaining or the last real issue that
6 cropped up was the issue of these visitor cards that
7 hadn't been indexed completely by DOE and so they
8 are undertaking that effort. And at the last
9 meeting, the Work Group requested that SC&A go in
10 and come up with sort of a proposal of methods that
11 we could use for sort of a verification and
12 validation study, when that coding and indexing
13 effort, ideally, was completed.

14 And we have come up with data. It's not
15 in your hands yet. It is in the final round of
16 internal review on our side. I believe that might
17 one might have to go to DOE just because it is a
18 proposal and also a brief sort of proof of principle
19 to show that we think that the method could actually
20 work to do that sort of V and V activity on the
21 coding effort, which I think will go a long way

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1 towards answering a lot of the questions that the
2 Work Group had, especially regarding
3 implementation and things like that, such as
4 slightly illegible records, or misspelling of
5 names, or nicknames, or something that might appear
6 on the visitor cards.

7 So, we have come up with a method and
8 that should be -- it is a pretty brief memo but it
9 should be in your hands shortly.

10 MEMBER MELIUS: Thanks, Bob.

11 Tim, any change in scheduling or update
12 on the scheduling issue on that?

13 DR. TAULBEE: From DOE?

14 MEMBER MELIUS: Yes, the data
15 processing.

16 DR. TAULBEE: I have not heard anything
17 from them.

18 MEMBER MELIUS: Okay. I guess we
19 didn't -- Greg wasn't impressed with our subtle
20 pressure.

21 DR. TAULBEE: Okay. I mean, I can

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1 contact Greg and we can get an update on that.

2 MEMBER MELIUS: Yes, if you could.
3 I'm more concerned that -- I'm not sure we can push
4 it up but at least we can -- I would hate to find
5 out that it is going to take another year or
6 something because of a change in resources, or
7 priorities, or whatever.

8 DR. TAULBEE: Okay, I can certainly do
9 that and notify the Work Group via email.

10 MEMBER MELIUS: Oh, okay. Thanks. I
11 appreciate that.

12 MR. STIVER: Tim, this is John. I have
13 got a question for you, since we are kind of on the
14 subject.

15 At the August 2nd meeting, you
16 indicated that the SRDB, the references that Joe
17 and Bob had captured back in March should be up on
18 the SRDB by the end of the month. And Bob indicated
19 to me that he had found a couple. I'm just
20 wondering to the extent that that has already been
21 completed or not.

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1 DR. TAULBEE: It has not been completed
2 and let me apologize for saying that would be done
3 by the end of the month. That was my
4 misunderstanding of how long this takes. I have
5 been in contact with ORAU and to get all of these
6 requests uploaded is going to take into November.

7 What we have asked for is that ORAU move
8 the -- well, currently, we have references that we
9 are using in the ER addendum that we are writing.
10 This the reserved portions. So, we have moved
11 those references up to the front to get indexed so
12 that we have got SRDB numbers so they can be
13 referenced properly in the documentation.

14 What I asked them to do was then take
15 all of the SC&A requests from that data capture and
16 move that to just behind our ER addendum. And so
17 they will go there before the remainder of them.

18 Just to let everybody know, these were
19 over 1,300 documents that were released on seven
20 flash drives in August. So, this is taking a
21 little bit of time for them to get them indexed into

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1 the SRDB because they do -- where there is large
2 documents and subdocuments, they do index each of
3 those titles. And so this is more of a complicated
4 process than what I had envisioned or thought of.
5 And I apologize for that.

6 I believe that we will probably have all
7 of SC&A's documents in there, I am hoping, by the
8 middle of next month, if not sooner. Once they
9 are, I will let you know, though.

10 MR. STIVER: Okay, so probably
11 mid-October, then we will say?

12 DR. TAULBEE: Yes.

13 MR. STIVER: Okay, thanks.

14 MR. BARTON: John, this is Bob Barton.
15 I have been able to kind of dive in a little bit
16 more since we spoke a day or two ago.

17 A lot of the references that we
18 collected in January and the subsequent data
19 captures are actually in the SRDB, so, at least with
20 regards sort of the evaluation of the Chemical
21 Processing Plant prior to 1963. Of course, the

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1 issue we are really looking at there is whether
2 there was any potential for exposure to alpha.
3 Internally, that was not in the presence of fission
4 products. So, there is a lot of references that
5 are uploaded. So, I don't think we have really
6 seen it at this point, with going forward with that
7 analysis. There may be a few more there but a lot
8 of them that we did capture have been uploaded
9 recently.

10 CHAIRMAN SCHOFIELD: I've got a
11 question. Josie brought this up a few minutes ago.

12 What is happening on the Burial
13 Grounds? Is anybody actually looking at that at
14 this point or has that been pushed down?

15 MR. STIVER: Phil, a lot of those
16 records that Joe collected back in March come to
17 bear on the Burial Ground. As Tim indicated, they
18 probably won't be available until mid-October.

19 We also wanted to interview some more
20 Burial Grounds workers in the early period, if that
21 is, indeed, feasible, and find them. And that

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1 would be in early October.

2 So, it is still very much on the table.

3 It is just that because of the bottlenecks and
4 getting some of this information available through
5 INL and so forth is just taking longer than we would
6 like.

7 CHAIRMAN SCHOFIELD: Okay. I do have
8 one other question while we are all on the phone.

9 My understanding is that they want to
10 use the ten percent of the MPC as a bounding value.
11 I have real heartburn with that, how this could be
12 used as a bounding value. I mean, basically, you
13 are saying that that doesn't exist at a higher level
14 than that is my take on this. It seems like at
15 least 50 percent of what that value is because if
16 it is not setting off any alarms or anything, you
17 don't really know what level it is in that
18 particular facility or room or location.

19 MR. STIVER: Yes, Phil, that is
20 actually kind of another aspect of the general air
21 versus breathing zone issue that Tim is going to

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1 address after the ER addendum in the 83.14, I guess.
2 I don't know if that is possible to do parallel with
3 the resources we have got.

4 But that is kind of the flip side, if
5 you will, of that other point because you are
6 sampling, getting general air sampling, and you
7 come up with values that are less than ten percent
8 of the MPC, is that really representative of what
9 the workers are encountering in their breathing
10 zones? And that was the subject of Hans' paper
11 that we talked about very extensively at the last
12 meeting.

13 CHAIRMAN SCHOFIELD: Yes.

14 DR. TAULBEE: And based upon from our
15 earlier discussions here, that is my third major
16 deliverable back to the Board, the way I look at
17 this. The ER addendum, the 83.14 for CPP, and then
18 the air sample issue for ANL-West.

19 CHAIRMAN SCHOFIELD: Job security for
20 you, Tim.

21 MR. STIVER: Tim, are those types of

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1 things going to have to be done in parallel or are
2 you going to have to do them sequentially?

3 DR. TAULBEE: I don't know yet. I just
4 don't know the answer to that yet.

5 MR. STIVER: Okay.

6 DR. TAULBEE: I made the ER addendum,
7 based upon our current resources, the first one to
8 get done. The 83.14, and the air sample, that is
9 something we are going to have to look and see
10 whether we can or cannot.

11 My initial guess says probably not but
12 I'm actually not the one who schedules resources.

13 MR. STIVER: Okay. This is John
14 again. There was one other thing that we were
15 tasked to do at the last meeting, which was for Ron
16 Buchanan to kind of address some of Tim's concerns
17 about the review of the fuel developer contact,
18 kind of direct measurements of fission and
19 activation products and actinide activity ratios.

20 And so while I was on the phone, I
21 believe we talked a little bit about the issues and

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1 process of reorganizing the data into monthly
2 cycles and also looking at plume dose potential,
3 and also some statistics of the distributions that
4 are involved.

5 So, Ron, if you are on, maybe you could
6 give a little bit of a background on that, if you
7 can.

8 DR. BUCHANAN: Okay, this is Ron
9 Buchanan with SC&A. We discussed this on the
10 second of August.

11 Just to give you a little background,
12 my initial look at this was to see if there was
13 actual benchmarks that we could compare to the
14 computer-generated values in OTIB-64 for fission
15 activation products with the cesium and strontium
16 ratios and the actinides in TBD-5.

17 And so I went through and searched for
18 data that gave simultaneous measurements of cesium
19 and strontium and also some fission activation
20 products and actinides, if possible, and compared
21 those with what was recommended in those documents.

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1 And so, initially, I did this and came
2 out with some data that I started working on the
3 waste data. And I issued a report in June on that
4 and had some data points in there that showed that
5 about 35 to 45 percent of them actually fell in a
6 reasonable range for strontium and cesium. And
7 the importance of that is strontium-137
8 and -- cesium-137 and strontium-90 are considered
9 to be about in equal ratios in these documents that
10 will be used for dose reconstruction.

11 So, the first thing was to look at that
12 and see if they were around unity and then also,
13 if the data was available, to look at the ratio of
14 cesium-137 and/or strontium-92, the fission
15 products that were reasonably long in half-life.
16 I did not look at the ones that were very short
17 because you don't know when they generated. So,
18 you don't know what the equilibrium is.

19 So, I looked at the ones in OTIB-54 that
20 had about a year half-life or greater and compared
21 those with the strontium and the cesium values and

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1 also the actinides given in the TBD-5 in tables 522
2 and 523. The ratios there, the main dose concern
3 was for about three of those radionuclides actually
4 produced a significant dose and so I looked for
5 those.

6 Now, one problem you run into is if they
7 do actinides, they don't usually do fission
8 products and vice-versa. So, there are very few
9 tied together.

10 I did present this information at the
11 August report and NIOSH brought up the question of
12 well, you used mainly annual results for the waste
13 data. What about the monthly results? Because
14 some months there would be no say cobalt-60 listed.
15 So, that would kind of skew the annual dose for
16 those months that cobalt wasn't listed.

17 So, I went back and looked at some and
18 Tim was gracious enough to provide me with -- I did
19 know that he was familiar with it -- listed all the
20 monthly and the annual, dug through thousands of
21 documents and thousands of pages to find some

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1 matching pairs that were done at the same time.

2 And so I came up with about 350 matching
3 pairs and I looked at those on a monthly basis and
4 compared those to the yearly basis. And at this
5 point, I am at that stage, getting that
6 information, getting it into Excel spreadsheets
7 and those ratios, plotting that data. And I will
8 be working on the statistical aspects of that to
9 see if there is an issue or not with it. Before,
10 I had simply done a scatter plot and it fell within
11 plus or minus a factor two on the ratios.

12 Right now, I am looking at some
13 regression analysis and, obviously, probability
14 distribution and I have that about ready to discuss
15 with our mathematician there who does the
16 statistics.

17 And then ANL -- that was all for INL.
18 Now, ANL has a lot less orders of magnitude less
19 data. I did find some additional data. It looks
20 like the ANL follows the INL. So, to some extent,
21 and since there is a lot less information for ANL,

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1 I will use what I have. I probably won't find any
2 350 pairs but it looked like it is mirrored by INL.
3 So, we will concentrate on that but I will look at
4 what I have for ANL on a monthly and yearly basis.

5 So, at this point, we are ready to do
6 statistical analysis on INL data and probably will
7 have something out to the Work Group, hopefully,
8 for the November Board meeting. This is fairly
9 manually intensive. So, it takes a while to get
10 all this data together and analyzed.

11 But at this point, I don't see any big
12 differences between the monthly and yearly but I
13 will reserve that until we can do some more detailed
14 statistical analysis on it and then also look at
15 what data we have for ANL.

16 So, I will try to have something out by
17 the November meeting.

18 Any questions on that?

19 DR. TAULBEE: None from me.

20 MEMBER BEACH: None from me, either.

21 Thanks.

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1 MEMBER ROESSLER: None from me. I
2 don't know if I'm off mute.

3 MEMBER BEACH: Yes, you are, Gen.

4 MEMBER ROESSLER: Okay.

5 CHAIRMAN SCHOFIELD: I don't have any
6 questions on that.

7 MEMBER ROESSLER: I have a new phone
8 and I'm getting used to it.

9 MEMBER BEACH: Should we talk about a
10 next meeting, maybe, Phil or are we not ready for
11 that yet?

12 CHAIRMAN SCHOFIELD: I think with the
13 interviews coming up and stuff, I don't think we
14 -- I would hate to kind of set one at this point.
15 Maybe look at the one in January or something after
16 the interviews are done.

17 DR. TAULBEE: I would like to propose,
18 Phil, that we do a technical call about the
19 interviews for coordination purposes.

20 CHAIRMAN SCHOFIELD: I don't have a
21 problem with that, if John doesn't have a problem

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1 with that and Ted. I mean, obviously, that would
2 have to go through --

3 MR. KATZ: Oh, yes. No, there is no
4 trouble with having a technical call. For me to
5 notice it, that's a piece of cake.

6 So, just keep me in the loop and I will
7 arrange it whenever you guys figure out when is a
8 sensible time to do that, your preparations.
9 That's fine.

10 I did have a question, just for clarity.
11 So, we have a November, very end of November Board
12 meeting and I'm just not sure but the sense I am
13 getting from what has been said so far then is it
14 seems like we may not have any INL consideration
15 at that November Board meeting because nothing will
16 be ready that is going to move anything. Is that
17 correct, with respect to, for example, the current
18 proposed definition for the chemical plant?

19 DR. TAULBEE: Ted, this is Tim. We
20 were hoping to have the ER addendum done.

21 MR. KATZ: And enough in advance of the

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1 November meeting that it could actually be taken
2 up then at the November meeting?

3 DR. TAULBEE: I'm hoping.

4 MR. KATZ: Okay. I guess what I want
5 to understand is is that something that is going
6 to come to the Work Group first? Is it going to
7 be early enough for that or is that just going to
8 be presented at the Board meeting?

9 DR. TAULBEE: I guess, that I leave to
10 you all, Ted.

11 MR. KATZ: Well, I mean, it depends on
12 the timing.-

13 MEMBER MELIUS: Ted, what I have down
14 is that Tim was estimating early November for that.

15 MR. KATZ: Oh, okay. So, do we want
16 the Work Group to hear that first or do we want to
17 just have that at the Board meeting?

18 CHAIRMAN SCHOFIELD: I think it would
19 be good for the Work Group to look at it and see
20 if we feel that it is far enough along that we can
21 make a recommendation. I would just hate to get

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1 blindsided with it just a few days later,
2 particularly if we don't feel that we can go with
3 the recommendation, at this point.

4 MR. KATZ: Right. Well, if it is an
5 opportunity for that, then we might as well book
6 a Work Group meeting and then I'll send it out --we
7 don't have to do on the phone here, unless you want
8 to -- but for a few weeks out from the Board meeting,
9 so that we are able to have that Work Group meeting,
10 if the timing works out. Right?

11 CHAIRMAN SCHOFIELD: Yes.

12 MR. KATZ: Yes, if you guys have your
13 calendars and you want to do it now we can do it
14 or I can send something out.

15 MEMBER BEACH: I'm good.

16 MR. KATZ: Okay. I mean, I'm fine. I
17 have my calendar right here. We can book it now,
18 if you want. And of course, you know, depending
19 on when the timing of when it actually gets done,
20 the work gets done, it may affect things. But it
21 seems like we would want it no later than -- I mean,

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1 Thanksgiving is the week before the Board meeting.
2 And I would think we would want it, ideally, no
3 later than the week of November 7th.

4 DR. TAULBEE: The week of November 7th
5 is when we are doing the INL interviews.

6 MR. KATZ: Oh, okay. So that week
7 doesn't work. What about -- well, the report isn't
8 your work, Tim, is it? I mean, at the end, you are
9 getting approval from --

10 DR. TAULBEE: Yes, reviews and so
11 forth. I'm just looking -- I just pulled up the
12 latest project plan dates and this is actually
13 putting it at the end of November.

14 MR. KATZ: Oh, okay. Alright. Well,
15 the end of November is the Board meeting.

16 DR. TAULBEE: Yes. So, I don't think
17 this is actually going to be available for the Board
18 to look at, certainly not 30 days before.

19 MR. KATZ: Well no, not 30 days but then
20 it sounds like not really at all is what you are
21 saying, I think.

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1 DR. TAULBEE: Yes.

2 MR. KATZ: So, then it sounds like it
3 is a presentation to the Board, Tim, or not even
4 ready for that?

5 DR. TAULBEE: It may not even be ready
6 for that. Let me get back to you on that. I
7 apologize.

8 MEMBER MELIUS: We can put it
9 tentatively on the agenda for November.

10 MR. KATZ: Yes, we will put it
11 tentatively on the agenda. But Tim, as soon as you
12 can figure out if it is going to make it or not,
13 then please let me know.

14 DR. TAULBEE: Okay.

15 MR. KATZ: Alright. Alright, then we
16 don't need to book another Work Group meeting in
17 advance of the Board meeting.

18 Okay, good. Alright, does that take
19 care of everything, Phil? Anything else for the
20 good of the order?

21 MEMBER BEACH: This is Josie. Who is

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1 going to send around options for the tech call? Is
2 that going to be SC&A or --

3 MR. KATZ: As soon as SC&A and NIOSH
4 figure out when the right timing is for that tech
5 call, one of them will send me a note and I will
6 send it around to the Work Group.

7 MEMBER BEACH: Okay. And I think,
8 John, you have Joe's schedule. So you can --

9 MR. STIVER: Yes. Yes, we will work
10 together on that.

11 MEMBER BEACH: Okay, perfect.

12 MR. KATZ: Sounds good.

13 CHAIRMAN SCHOFIELD: Okay, sounds
14 good.

15 MEMBER BEACH: Thank you.

16 CHAIRMAN SCHOFIELD: Thank you.

17 **Adjourn**

18 MR. KATZ: We're adjourned. Thank
19 you.

20 (Whereupon, the above-entitled matter
21 went off the record at 11:43 a.m.)

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