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

+ + + + +

ADVISORY BOARD ON RADIATION AND WORKER HEALTH

+ + + + +

ROCKY FLATS WORK GROUP

+ + + + +

MONDAY,
JULY 20, 2009

+ + + + +

The work group meeting convened via teleconference at 10:00 a.m., Mark Griffon, Chairman, presiding.

PRESENT:

MARK GRIFFON, Chairman
MICHAEL H. GIBSON, Member
WANDA I. MUNN, Member
ROBERT W. PRESLEY, Member
ALSO PRESENT:

TED KATZ, Designated Federal Official
NANCY ADAMS, NIOSH Contractor
TERRIE BARRIE, ANWAG
CAROLYN BOLLER, Office of Senator Mark Udall
SHANNON BRADFORD, NIOSH OCAS
LARRY ELLIOTT, NIOSH OCAS
JASON BROEHM, HHS
EMILY HOWELL, ESQ., HHS
BONNIE KLEA, Participant
ROY LLOYD, HHS
ARJUN MAHIJANI, SC&A
JOHN MAURO, SC&A
ROBERT McGOLERICK, HHS
DAN McKEEL, Dow, Petitioner
JIM NETON, NIOSH OCAS
JUDY PADILLA, Participant
MUTTY SHARFI, ORAU
BRANT ULSH, NIOSH OCAS
<table>
<thead>
<tr>
<th>TABLE OF CONTENTS</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.     Roll Call</td>
<td>4</td>
</tr>
<tr>
<td>II.    Comments by Dr. Brant Ulsh</td>
<td>12</td>
</tr>
<tr>
<td>III.   Discussion</td>
<td>17</td>
</tr>
</tbody>
</table>
MR. KATZ: Okay. I think -- why don't we just go ahead, do roll call, and I guess Wanda will join us when she can.

Okay. This is the Rocky Flats Working Group of the Advisory Board on Radiation and Worker Health. My name is Ted Katz, and I am the Acting Designated Federal Official for the Advisory Board. And we are meeting this morning to discuss the Ruttenber data and other data used in relation to Rocky Flats, and particularly in relation to neutron exposures.

So we will begin with roll call, and beginning with the Board members. And, please, for everybody in roll call, other than the public, but all the government employees please state your conflict of interest situation when you say your name, starting with Mark.

CHAIRMAN GRIFFON: Mark Griffon.
I'm the Rocky Flats Work Group Chair.

MR. KATZ: No conflicts?

CHAIRMAN GRIFFON: No conflict.

MEMBER PRESLEY: This is Robert Presley, no conflict.

MEMBER GIBSON: Mike Gibson, no conflict.

MEMBER MUNN: Wanda Munn, no conflict.

MR. KATZ: Was that Wanda?

MEMBER MUNN: Yes.

MR. KATZ: Welcome, Wanda.

MEMBER MUNN: Thank you.

MR. KATZ: Okay. That is the Board members. And now for the NIOSH and the ORAU team, please?

MR. ELLIOTT: Larry Elliott, Director of OCAS, no conflict.

DR. NETON: Jim Neton, NIOSH, no conflict.

MS. BRADFORD: Shannon Bradford, NIOSH, no conflict.
DR. ULSH: This is Brant Ulsh, NIOSH OCAS, no conflict.

MR. SHARFI: Mutty Sharfi, ORAU team, no conflict.

MR. KATZ: Okay. That does it for NIOSH/ORAU team. How about SC&A?

DR. MAURO: John Mauro here, no conflict.

DR. MAKHIJANI: John Mauro Arjun -- John Mauro.

(Laughter.)

Arjun Makhijani. It's early here.

(Laughter.)

I woke up too early. No conflict.

MR. KATZ: Okay. That's it for SC&A. Then, how about other federal employees, NIOSH or otherwise? HHS, DOL, DOE?

MS. HOWELL: Emily Howell, HHS, no conflict.

MR. BROEHM: Jason Broehm, CDC, no conflict.

MR. LLOYD: Roy Lloyd, HHS, no
conflict.

MR. McGOLERICK: Robert McGolerick, HHS, no conflict.

MR. KATZ: Okay. Then any representatives of congressional offices, staff of congressional offices?

MS. BOLLER: Carolyn Boller, Senator Mark Udall.

MR. KATZ: Okay. And then members of the public, if you would like to identify yourselves, you are welcome to at this point, if you want to be in the transcript.

MS. PADILLA: My name is Judy Padilla. I am a former Rocky Flats nuclear worker, and I have a conflict.

MR. KATZ: There are no conflicts for the members of the public, actually. But, Judy, can you just spell your last name, please?

MS. PADILLA: P-A-D-I-L-L-A.

MR. KATZ: Thank you.

MS. ADAMS: Ted, Nancy Adams,
NIOSH contractor. Also, I went looking on the website for the Ruttenber report, and I -- it is not easy to find. I have not been able to find it, just in case somebody had a URL for it.

MR. KATZ: Okay. Well, we can maybe get to that in a second, but let's continue with members of the public.

MS. BARRIE: This is Terrie Barrie with ANWAG.

MR. KATZ: Welcome, Terrie.

MS. BARRIE: Good morning.

MS. KLEA: This is Bonnie Klea from the Santa Susanna Field Laboratory in California.

MR. KATZ: Welcome, Bonnie.

MS. KLEA: Thank you.

MR. KATZ: Okay. Any other members of the public?

(No response.)

All right, then. Then, let me just remind everyone that's on the phone,
members of the public, et al., please mute your phone except when you are part of the discussion. And if you don't have a mute button on your phone, you can use *6. That will mute it. And then, if you need to come back on to speak, you just press *6 again, and that will unmute your phone. So please do that, and please do not put the phone on hold at any time. Just hang up and call back in if you need to go away for a brief bit.

Much thanks, and, Mark, it is all yours.

CHAIRMAN GRIFFON: Thanks, Ted.

Yes, this is Mark Griffon, and I just wanted to start off the meeting with a couple of statements, and then we will get into the report that was submitted by NIOSH.

I think one thing I wanted to say up front was that this is -- it is our Rocky Flats Work Group. We are not looking at the SEC evaluation anymore. We have made our determination, we have sent our letters in on
the -- establishing the SEC.

The narrow focus here -- and I think this is important for our discussions for the next little while -- was to evaluate the Ruttenber database for impact on the Rocky Flats SEC eligibility, and that was -- that was really what we were totally focused on here, not expanding or having the discussions again about the SEC. So I just wanted to clarify that up front for all that are on the line.

One little administrative thing I wanted to say. I have -- I don't think the website says this, but I have to be off the call by noon, so -- but I think that gives us plenty of time to get an overview on this and have some discussion.

So my intent for this call was to have NIOSH give an overview of the report, to have, then, an opportunity for some questions. I will say that Terrie Barrie emailed me a question that she would like read into the
record, so I will do that for Terrie, but then other questions from other work group members would be fine there, and then, if there's questions from the public. And then, I think we might want to talk about next steps at the end of the call.

I assume Brant would be giving the overview on the report -- if I can ask you to sort of give a -- I guess what I am looking for is like a reduced, condensed version of the entire report, you know, just the objective of your comparison, the methods you used, and sort of the bottom line, what -- you know, how does this impact the potential eligibility for the class?

I don't think we need the whole history and the timeline, if people want to get into that, or if we want to -- you know, going forward people may want to look at that and have some questions on that. But I am not sure -- just at least as a first step if you can keep it narrowly focused on the objective,
the methods you used to determine it, and then
what your conclusions were, that would be I
think helpful, especially in a short time
phone call.

Is that all right, Brant?

DR. ULSH: Sure, Mark. No
problem.

CHAIRMAN GRIFFON: All right.
With that, I will turn it over to you, unless
other people have questions on the agenda
before we --

MS. BOLLER: Was Margaret
Ruttenber going to be on this call?

CHAIRMAN GRIFFON: I don't know.
I didn't hear her acknowledge herself, so I'm
assuming she -- well, I'm not sure. I haven't
heard anything from her.

MR. ELLIOTT: This is Larry
Elliott. I sent her a copy of the report and
notified her of the conference call this
morning. But I don't know if she is intending
to participate or not.
MS. BOLLER: Okay. All right.

Thanks, Larry.

CHAIRMAN GRIFFON: Okay. I guess I will turn it over to you. Thanks.

DR. ULSH: Okay. Well, this is Brant Ulsh. The reason -- as Mark mentioned, the reason that we are meeting this morning is to discuss to what extent the epidemiological studies conducted by Jim and Margaret Ruttenber, whether they are similar to the neutron dose reconstruction project, which I will refer to as the NDRP, or to what extent they might be different, and how that might impact eligibility for the Rocky Flats SEC cohort.

One idea that was circulated and there was a lot of concern about, is that these studies, the Ruttenber studies and the NDRP, rely on different records, and they are totally distinct datasets. And that is a misconception.

There was a lot of overlap. Both
programs grew out of the former medical monitoring program conducted at Rocky Flats. And, in fact, Jim Ruttenber even served on the Advisory Board of the NDRP. So, as you might imagine, there is a lot of overlap.

But they both started -- both the Ruttenber studies and the NDRP started from the dosimetry records that were provided by the radiation protection staff at Rocky Flats. The difference here is that the Ruttenbers only had access to total penetrating dose. So if you think of a pie chart, and the pie represents total penetrating dose, it is how you slice that pie into gamma and neutron components that is the question at issue.

And the Ruttenbers clearly expressed their preference to use the NDRP results. However, the NDRP was not finished in time for them to use them in their epi studies. And these are -- I mean, it is stated clearly in the Ruttenber reports that they would prefer to use the NDRP.
But in the absence of that, they had to devise some methods for splitting the dose into gamma and neutron components. And to do that, they rely -- they consulted with the staff of the NDRP and devised some rules of thumb to determine how to split up that total penetrating dose. They did this based on job types, and they did it based on what buildings workers worked in.

Now, another thing to note here -- and it might be different from what you've heard -- is that there is no disagreement between the Ruttenber studies and the NDRP regarding which buildings presented neutron exposure potential.

So what the Ruttenber team, the Colorado Department of Public Health and Environment team, did was they assigned neutron doses to all members of a job type, if any member of that job type could have been exposed to neutrons.

So, for instance, if there was a
tool engineer who worked in Building 771 and could have been exposed, well, then, all tool engineers were assigned a neutron dose.

Now, the difference here is that the NDRP relied on primary dosimetry records, so they went back and they pulled the worksheets that were performed -- that were prepared when the films were read, and they also reread the neutron films. So these are primary dosimetry records, and they relied on that -- the reread films -- to determine neutron exposure potential for the individuals that work at Rocky Flats.

So that difference in the way that neutron doses were assigned led the Ruttenber studies to assign about 4,000 -- neutron dose to about 4,000 more people than the NDRP did.

So given that, what we did is we looked at the impact.

We kind of asked the question: what would happen if the Ruttenber database were used to determine eligibility for the
Rocky Flats SEC cohort in addition to the NDRP that we already use? And we also already use the dosimetry files prepared and provided to us by the Department of Energy.

So to conduct that analysis, since we have the dosimetry -- complete dosimetry records for all NIOSH claimants, we identified the current claimants that are not members of the SEC class, but they -- they are not part of the NDRP, but the Ruttenbers did assign a positive neutron dose during an SEC year.

And we looked through those records, and we found no evidence that would suggest neutron exposure. And, furthermore, we applied the criteria that are used to determine SEC eligibility, so things like, do you have an SEC cancer for instance, or did you work more than 250 days, you know, all the criteria that are applied to an SEC.

And what we found was that there would only be one person out of the current NIOSH claimants that would be added to the SEC.
if the Ruttenber data were used in addition to the NDRP. So the idea that there would be thousands of people added to the SEC is simply -- well, quite frankly, it is just not accurate.

So those were kind of the main points of our report, and I would be happy to expand on any, Mark, if you have questions.

CHAIRMAN GRIFFON: Okay. I think one of the first questions was -- and this actually was expressed by Terrie Barrie -- did Margaret Ruttenber have a chance to comment on this report?

MR. ELLIOTT: This is Larry Elliott. I will answer that. No. She saw the report perhaps this morning. We didn't offer her an opportunity to comment and review.

CHAIRMAN GRIFFON: Okay. That was one question.

I would ask about these -- the 4,000 -- this number of 4,000, Brant. How
many people are in the NDRP? How many individuals are identified in the NDRP that have an exposure to neutron?

DR. ULSH: You know, Mark, I don't have that number at my fingertips. Mutty, do you have an idea?

MR. SHARFI: I mean, I could look it up real quick, but I don't have it off the top of my head.

DR. ULSH: Okay. Mark, how about if we answer your next question, and Mutty will look while --

CHAIRMAN GRIFFON: From the 4,000 standpoint, this -- I think 4,163 was the number in the report with some assigned neutron dose. I guess, you know, I think one follow-up question might be we are eventually probably going to want to see some of the data files that you used to put together the report.

But these were -- and I agree in the characterization -- I mean, the Ruttenbers
did use job information and a building, you know, whereas the NDRP was just with a building -- I do remember that discussion, even when we were out there in Colorado, I was out there with you.

But I -- I thought it was a little more complex than if one -- if one -- I forget what you said, tool mechanic or whatever, was in 771, and they just assigned it to all -- I mean, I thought there was a little more -- a little more complicated of a model than that. Am I wrong about that, Brant?

DR. ULSH: I think so, Mark. Well, I don't want to say that you are wrong, but it is just a little more complicated than that. In other words, they used ratios to split up the total penetrating dose, and those ratios were building-dependent, just as the NDRP was. And those ratios were provided by the staff working on the NDRP. They provided those ratios to the Ruttenbers.

So it is true, Mark, that they
looked in a little more detail about, you know, if you were in, for instance, Building 771 they used one ratio, but if you were in a different building they used a different ratio. But in terms of actually who was applied neutron dose, I believe that that's the way they did it, that they simply applied -- you know, they based it on job category.

CHAIRMAN GRIFFON: Just on job category regardless of the potential for neutron exposure. They just said, this job -- we found one case of this job that had a potential, and, therefore, we are going to say anybody with that job title had the potential?

DR. ULSH: I believe that is the case.

CHAIRMAN GRIFFON: Okay, I wasn't clear on that. And then, let me just follow-up with one, and then I will open it up to either SC&A or other work group members, if they have other questions.

But the 100 people that you
reviewed, can you explain a little bit more on
-- just a little more on -- so these were 100
-- of your existing claims, these were -- of
the -- if you had the whole list of claimants
that you have in your system, you identified
100 that were not in the Ruttenber -- or were
not in NDRP but were in the Ruttenber
database? Am I characterizing that correctly
or no?

DR. ULSH: Yes, pretty close. Of
those 4,000-plus people who the Ruttenbers
assigned neutron dose to, but the NDRP did
not, we identified which ones were claimants.
And the reason that we focused on claimants
is because we had access to their complete
dosimetry file.

So out of that 4,000 people, 100
of them are current claimants. So that is the
-- that is the population that we examined in
detail, because we had access to all of their
records.

CHAIRMAN GRIFFON: And did you
examine all of the 100, or did you triage it first? I am a little confused, because you seemed to drop off the cases that were -- that were non-listed cancers, which, you know, is pretty irrelevant for establishing exposure.

DR. ULSH: Well, okay, the goal of our analysis, Mark, was to determine what impact on the SEC that adding the Ruttenber as a source data would have had. So you are correct that we did do the triage first.

So, for instance, if a person had prostate cancer, which is a non-SEC cancer, we triaged that. Or if they didn't meet the other criteria for the SEC, that was triaged. Or, for instance, if they are already a member of the SEC class -- and I think there were about 50 of the 100 that were already in the SEC -- so those were triaged out, because the addition of the Ruttenber data would not have any impact on whether or not they are included in the SEC.

CHAIRMAN GRIFFON: However, they
already -- can you explain that, too, Brant, how were those people in -- or in the SEC without being in the NDRP? What was the other criteria that tripped them into the SEC?

DR. ULSH: Well, we would have to look at each case in detail. However, I suspect -- now let's keep in mind how these cohorts were constructed. First of all, if you were a member of the NDRP, if you were considered in the NDRP, you were considered was or should have been monitored for neutrons, and you would be eligible, assuming you met all of the other criteria.

CHAIRMAN GRIFFON: All right.

DR. ULSH: But recall that it was decided that work in Building 881 would qualify for addition into the SEC. Now that would not qualify you for entry into the NDRP.

So basically what we have done is we have taken all of the people who were actually working in a plutonium building or a neutron building and they're in, and then, of
the remainder of the people, essentially work in the largest remaining building, building 881, has also been added.

So I think I would -- it is my very strong suspicion that that is how many of those 50 people were already included in the SEC because they had worked in Building 881.

CHAIRMAN GRIFFON: But wouldn't it have been more informative to look at the 100 out of the 4,163, to look at, them, totally, because, I mean, I understand -- I understand the claims process. But we are looking at special exposure cohort here, and the eligibility to be in the class, you know, that is -- I mean, you know, we don't know going forward who is going to get what type of cancer.

So, you know, if we want to know how -- you know, if this database serves us in any way in determining eligibility for future claims, I would be interested to know -- even though these 50 were already included, you
know, if you examined them and you found --
you know, it would be of interest to me anyway
to see why those names were in the Ruttenber
database and not in the -- you know, look at
the original neutron records and see what you
find.

DR. ULSH: Well, Mark, given the
level of interest in determining eligibility
for the SEC class, that being the primary
interest, we focused very closely to the
impact that this would have on SEC
eligibility. So, yes, sure we could go back
and look at all 100 people. But the report
wouldn't have been presented to you now. It
would have taken a few more months to -- I
mean, to look at that.

CHAIRMAN GRIFFON: I guess that is
what I am focused on, too, is eligibility, not
-- I think we are -- I mean, I might be not
making my point very well, but, you know, the
idea -- I mean, if we are just looking at this
as a sample rather than as -- strictly as
specific claims files, let's say this is a sampling of 100 people that we just have -- happen to have access to their raw records, so we are going to use that to make judgments about the -- you know, the entirety of the database.

Then I would say you need to examine the entire sample, not just those that you have already, you know, either disposed of in a separate manner through the SEC process or you have excluded for -- because they didn't have the correct type of cancer. Do you understand what I mean?

Dr. Ulsch: I do understand what you are saying. But, you know, I am going to defer to Larry on that in terms of dedicating resources. However, but I would say to you that we focused on the important question, and that is, for whom would this make a difference in terms of being in the SEC or not? And that was only one person.

Dr. Neton: Mark, this is Jim.
I've got a sense that maybe we are going off the track here, though. It is not would more people be in the SEC if we used the Ruttenber data, but which dataset really appeared to be a more representative set of people who are neutron exposed. I mean, I don't -- you know, I understand that --

CHAIRMAN GRIFFON: Well, we've --

I mean, you may disagree with this, Jim, but I think the Board has already determined that, you know, we have got concerns about the NDRP data and the use for -- you know, that's why the recommendation went out to the Secretary.

DR. NETON: But not necessarily NDRP data reconstruction itself, but identification of those who were neutron exposed, the way the process was --

CHAIRMAN GRIFFON: Right. Right, right. Okay.

DR. NETON: -- performed.

CHAIRMAN GRIFFON: All right.

Well, I --
DR. NETON: I think that is a different issue, and, you know, Brant outlined in the report, I think in some detail, why the NDRP, which went back and pulled 90,000 people's records and reanalyzed them in detail, and the Ruttenber study actually states that that would be a more representative set. And why go back, then, and reconstruct history based on a more what I would consider obsolete dataset is sort of questionable, but --

CHAIRMAN GRIFFON: Well, yes, and I don't want to reconstruct the dataset. I'm more interested, like you, Jim, in answering that question of --

DR. NETON: But, I mean, the central question is --

CHAIRMAN GRIFFON: Which one is more complete in identifying people, you know, who could have been exposed to neutrons? And I will go back to my one example that I have used throughout this debate is, you know, the
maintenance person in the non-neutron building
who got sent into other buildings to do work,
you know, that hypothetical example or maybe
it is a more real example. But for this
purpose, for me it is a hypothetical example.
You know, this is where, you know, the use of
job title might have been important if it was
done -- you know, and, again, that's why we
set out this task.

DR. ULSH: Okay. There's a couple
points to make on that issue, Mark. We are
talking about roving workers here, and this
has been asked --

CHAIRMAN GRIFFON: Yes.

DR. ULSH: -- several times
before. So just for people who are on the
call who may not be as familiar with what we
are talking about here, rovers are people that
were stationed, officially stationed at least,
in a non-neutron building, but occasionally
their work took them into neutron buildings.

And so the concern here is, were
those people captured in the NDRP? So if I could, here is what the NDRP says about it. "A small portion of the total number of neutron worksheets represent the issuance of neutron dosimeters to a few personnel whose home building assignments were the non-plutonium production building, such as Buildings 21, 22, 23, 34, 44, 81, and 86. "These individuals primarily worked in non-neutron buildings but were routinely issued neutron dosimeters because they occasionally performed work activities in plutonium production buildings. Some examples of these job descriptions are guards, radiation monitors, technical researchers, and uranium process operators."

So what I can present to you, again, is that the NDRP captured these people. Now can I prove the negative, that there is not somebody onsite who fits into this category that the NDRP did not capture? Well, it is not possible to prove a negative, but we
have evidence that they made an effort to
capture these people, and we have seen no
evidence that people are missing, people that
fit this category were not captured. So that
is all I can do now, and that is really all I
am ever going to be able to do.

CHAIRMAN GRIFFON: The only
evidence we have is the 4,163 additional
people in the Ruttenber database. And if you
are calculating it accurately, that number is
vastly too high. I mean, if it was simply
done on job title, I mean, in talking with
Margaret, I got the sense that it was a little
-- it scrutinized a little further than just
simply job -- it wasn't just any maintenance
mechanic, but they tried to determine if it
was maintenance mechanics that would have gone
into other buildings or things like that, but
maybe I am wrong on that. But, you know --

DR. ULSH: Well, I can tell you
that they did use rules of thumb. That was
confirmed to me both in some of the meeting
minutes that Margaret provided. It was also confirmed to me by Roger Falk, who gave them the rules of thumb. And that is what they used.

Now, with regard to -- I think Jim is right here that we are kind of focusing on an important question, but maybe not the main question, and that is, which would be the most reliable for determining who would then be -- who was neutron exposed.

So if you consider the fact that the Ruttenbers -- and keep in mind I am not criticizing what the Ruttenbers did. I think they did an admirable job with the data that they had at the time. It's just that they didn't have access to all of the data that the NDRP did.

And it mystifies me why anyone would try to make the case that the NDRP is not acceptable when they reread the films and went back to primary dosimetry results. And the Ruttenber data didn't have access to that,
and they had to simply apply rules of thumb.

    So I can't see that -- I can only

---

CHAIRMAN GRIFFON: Yes, I -- I think Arjun has a follow-up question.

    DR. MAKHIJANI: Yes. Is everybody in the NDRP have a badge and their badges were reread, it was my impression, at least in the early years, most of the people who had potential for neutron exposure were not badged. And so like the Ruttenber database, their total dose was split by N/P ratio. It didn't seem to me like the -- you know, there were 700 buildings where people did not have badges because people didn't realize it was a high neutron area.

    DR. ULSH: No, that's not quite accurate. Parts of that are accurate, but parts are not. It is true that in the early --

---

    DR. MAKHIJANI: -- have a neutron badge in neutron buildings that we recognize
now?

DR. ULSH: Okay. It is true that in the early years they limited badging to those that were considered the most highly exposed.

DR. MAKHIJANI: That's right.

DR. ULSH: Now --

DR. MAKHIJANI: But my actual question -- you made a statement that the NDRP -- it consists of people whose badges were reread. And what I am -- what my understanding is, that the NDRP also includes people who did not have badges and whose doses are estimated only by N/P ratio, at least in certain years.

DR. ULSH: That is --

DR. MAKHIJANI: Is that correct?

DR. ULSH: No, it is not just like the Ruttenber database. They had --

DR. MAKHIJANI: No, the N/P --

DR. ULSH: -- they had a -- well, let me answer your question. Let me answer
your question. The answer is -- how did you get into the NDRP? And the answer is if you were issued neutron dosimetry or even if you did not have neutron dosimetry, if you had beta-gamma monitoring in a neutron building.

So, yes, it is true that there are numerous people -- I don't know how many, I would have to look -- who did not have neutron badges, but they are in the NDRP anyway. And by that, they are already in the SEC class.

DR. MAKHIJANI: Well, you had to do the same thing in the NDRP for people who did not have neutron doses, but beta-gamma dosimetry. They had the full pie, but you couldn't break it up. And so they had to use N/P ratios for those people, which is --

DR. ULSH: That is correct.

DR. MAKHIJANI: -- which is the method -- so I think the initial part of the record indicated that NDRP consists of people with reread badges, and the neutron doses in the Ruttenber database are N/P ratios is
inaccurate. The NDRP actually consists of --

MR. SHARFI: Let me clarify. This is Mutty Sharfi. Actually, Ruttenber split the penetrating dose, where the NDRP actually took the gamma dose and calculated neutron dose. Those are two different things.

DR. MAKHIJANI: Well, I need to know how this splitting was done. I am just -- I just want to make a point --

MR. SHARFI: The NDRP did no splitting --

DR. NETON: Time out. This is Jim. I think, Arjun, that the issue here is not the reliability of the dose calculation for neutron. The issue is --

DR. MAKHIJANI: Well, a lot of that has been inferred in the report.

DR. NETON: No, no, no.

DR. MAKHIJANI: And your report is about which methods were more accurate for dose reconstruction, whether it was N/P ratios or rereading the badges and --
DR. NETON: I think that is a misconception of the report. The report was --

DR. MAKHIJANI: Well, then why go into whether the Ruttenber study used --

CHAIRMAN GRIFFON: All right. Let Jim Neton speak, please.

DR. NETON: Yes. I would just like to say that the report is really more about who was potentially neutron exposed, not how accurate the neutron dose reconstruction is, because anybody with neutron exposures is in the -- is in the class already. The question is did the NDRP identify properly all workers who were potentially exposed to neutrons?

And as Brant indicated, in those years when neutrons weren't monitored, they assigned a neutron dose to workers who had beta-gamma badges in neutron buildings. So they were identified as potentially neutron workers based on having worn a beta-gamma
badge in a neutron building.

(Simultaneous speakers.)

DR. MAKHIJANI: Are there people in the SEC class now who are not in the NDRP?

DR. ULSH: Yes. Yes, there are. There are a number of them.

DR. MAKHIJANI: Then it is true that the NDRP is incomplete in that regard.

DR. ULSH: That is absolutely not true. The reason those additional people are in the SEC class was because they worked in Building 881.

DR. MAKHIJANI: Well, that is has got to be NDRP.

CHAIRMAN GRIFFON: That was a Board decision, Arjun.

DR. MAKHIJANI: No. It was a DOL determination.

CHAIRMAN GRIFFON: Yes, yes.

DR. ULSH: There are a number of people who are in the SEC class by virtue of the fact that they worked in Building 881.
However, we looked at those people, and there is no independent indication in their file that they were exposed to neutrons.

DR. MAKHIJANI: So you are saying they are wrongly in the SEC class?

DR. ULSH: They are consistent with the criteria that have been established by DOL for entry into the class, and that is Building 881. That is a settled issue.

DR. MAKHIJANI: No, it's a technical question relating to who is eligible to be in the SEC class and what the uncertainties are, which is what I am trying to understand, because in this conversation the NDRP is being represented as complete for those who were exposed to neutrons. But it is a fact that there are a significant number of people, including 50 out of the 100 that you looked at were not in the NDRP, who are in the SEC class even though they are not in the NDRP.

DR. ULSH: That is correct.
DR. MAKHIJANI: The NDRP cannot be defined currently, as the SEC stands, as representing completely those who are eligible to be in the class, in my opinion.

DR. ULSH: I never represented it as such. I clearly explained that DOL decided to add work in Building 881 as entry -- as a criterion for entry into the class. Those people are not necessarily into -- they are not in the NDRP unless they worked in a neutron building, as defined by both NDRP and the Ruttenber study.

DR. MAKHIJANI: So DOL did wrong by adding them? That's what I'm trying to understand.

DR. ULSH: I'm not going to answer that question because it is not in my authority to answer that question. DOL has the responsibility and the authority to determine how they will administer the class. They decided that work in Building 881 qualified, and so those people are in.
DR. MAURO: Brant, this is John Mauro. I have a question, and it's really for my -- I'm listening to the conversation. Am I correct in understanding that right now the real issue that is before us is that there are 4,000 or so people who are not currently within the circle that is under consideration for SEC treatment, within that group, is that correct?

DR. ULSH: Not quite. There are 4,000 or so people who are assigned neutron dose in the Ruttenber database, but who are not assigned neutron dose in the NDRP.

DR. MAURO: Okay. Now --

DR. ULSH: Now, a number of those people would most likely qualify just like the representative sample that we looked at.

DR. MAURO: I don't want to go there yet. I understand that, but I am taking baby steps right now. Okay. So what we have is 4,000 people, whether or not -- now, what I'm asking is, do you agree that those 4,000...
people are people that have the potential for neutron exposures but are currently not under consideration to be included within the cohort?

DR. ULSH: No, I don't.

DR. MAURO: Okay. Because that's what I hear is the essence of this conversation.

DR. ULSH: Sure. There are 4,000 people that the Ruttenbers assigned neutron dose to. We have not done a detailed analysis of all 4,000. That would take several years. But I would have to look at their dosimetry files and see whether there was evidence of neutron exposure or if there was evidence of work in Building 881, which is also a criteria.

DR. MAURO: Good. So we've got 4,000 people that are sort of in limbo right now. What I mean by that is that we have a group of 90,000 -- I heard a number like that -- which is currently under consideration, you
know, for possible assignment of compensation claims under the SEC. And there are these 4,000 people that do not appear to be within that circle, whether or not one or any of them would actually be compensated, but is there agreement that they did have the potential for neutron exposures but are currently not part of consideration within the cohort?

DR. ULSH: No. There is not agreement on that point.

DR. MAURO: Okay.

DR. ULSH: I would say to you that they would -- they simply were imputed neutron doses by the Ruttenbers based on the criteria that they used. We would have -- since they did that based on job classes without really evidence of work in a neutron building, I would say to you that for each of those 4,000, should they ever file claims, we would have to bounce that against the SEC criteria and determine whether they are in or not.

I can't tell you that every one of
those 4,000 had neutron exposure potential. I would do the same thing I did with these 100 cases that we looked at in detail.

DR. MAURO: So that is the essence of the disagreement, namely 4,000 people have been named, but there is no -- the level of -- the threshold of evidence that, yes, these people should be within the cohort automatically is not there. That would have to be dealt with on a case-by-case basis.

DR. ULSH: I would say so, yes.

DR. NETON: John, this is Jim. I would also like to point out something which I think is fairly important. The definition of the class, I believe, is those who were monitored or should have been monitored for exposures to neutrons. By definition, these 4,000 people or whatever there were, were not monitored for neutron exposures. And their doses were assumed and imputed by the Ruttenber study based on some job title information.
I think Brant could back this up. I think it is true, though, that the vast majority of those workers would have received far less than 100 millirem imputed neutron dose, which was the criteria -- the threshold criteria established by the Department of Labor for most classes, or all classes where the definition of "should have been monitored" came into play.

CHAIRMAN GRIFFON: I was hoping we wouldn't get to the 100 millirem --

(Simultaneous speakers.)

DR. NETON: I'm just saying that these people were not monitored at all for neutron exposure. Should they have been monitored is the question. And I think Brant's report clearly outlines that, based on the NDRP study, they should not have been monitored.

CHAIRMAN GRIFFON: Yes. If you're referring to -- this gets tangled around a little bit, but if you are -- if you're
referring to DOL, Jim, then 881, they should have been monitored for neutrons. So --

DR. NETON: We did not make that determination. Department of Labor did. And, frankly, this is -- this report provides, as best we can -- portrays the evidence of what was available for NDRP versus the Ruttenber. And, frankly, you know, the report stands on its own merit, and people can use it to make determinations as they see fit. But we do not make that determination of who was in the class.

CHAIRMAN GRIFFON: Well, I think -- well, I don't want to drag on too long with this because I think -- Jim, it would be nice if we could see the -- like I'm sure you use spreadsheets to put these names and numbers together and stuff, because I'm still a little unclear, especially on the 100, how many case files you actually went into and -- I don't want to, you know, try to get into it over the phone without looking -- you know, it might
just be easier to look at, but that might be one follow-up item that I would ask for anyway is the analysis files.

Go ahead. Who was trying to speak?

DR. MAKHIJANI: Mark, it seems to me from the report -- and Brant might confirm if this is right or wrong -- he said that they looked at 100 cases in detail. But as I read the report, only two of them were examined for neutron exposure.

CHAIRMAN GRIFFON: No, that's not accurate.

DR. MAKHIJANI: From this triage, the 50 were not examined because they were in the SEC, 22 because they had non-SEC cancers. Some were less than 250 days. Four at PoC greater than 50 were compensated already, and so on.

CHAIRMAN GRIFFON: Let Brant respond to that.

DR. MAKHIJANI: I don't know how
many -- how many neutron exposure potential investigations were done out of these 100 cases.

DR. ULSH: I don't know. I would have to go back and look at our spreadsheets to see that. But it is true that --

CHAIRMAN GRIFFON: Well, that is what we would like to look at, too, Brant, if we could.

DR. ULSH: Sure. That's no problem.

DR. MAURO: Before we move on -- this is John Mauro --

CHAIRMAN GRIFFON: Go ahead. Brant was trying to finish. I'm sorry.

DR. MAURO: I'm sorry.

COURT REPORTER: Excuse me. Hello. This is the Court Reporter. Could people please remember to identify themselves before they speak? I had trouble keeping track of the last bit of conversation.

MR. KATZ: And as long as he is
piping in on that point, I would just ask everybody to please -- I know everybody has something to say, but please try to let each person finish what they are saying before you -- before you come with your comment.

Thanks.

CHAIRMAN GRIFFON: Yes. And this is Mark Griffon, and I just cut Brant off. Sorry, Brant, I will let you finish your --

DR. ULSH: No, that's no problem, Mark. I consider part of the detailed analysis, we started at 100, and those are the people for whom at least in theory the Ruttenber data could make a difference. And we tried to determine, based on applying all of the criteria, which people it might have made a difference for. So that is where I consider the line for a more detailed analysis.

Now, it is true that we did do the triage, as I described before. If it couldn't possibly make a difference, we simply focused
on the people where it could make a difference. So, yes, I mean, I can -- it is easy enough to provide you the spreadsheets that back this up, and you all have access to NOCTS. And if you'd like to do whatever looks you want to, then that's fine, but --

CHAIRMAN GRIFFON: Yes, that would be helpful, Brant.

DR. MAKHIJANI: I'm trying to understand the meaning of the term "could make a difference." For me, there are two completely different meanings.

DR. ULSH: Okay.

DR. MAKHIJANI: One is they already had a cancer and could be eligible for compensation if they were in the SEC class. The other is, did they have potential for neutron exposure, whether they have a cancer or not, whether they are a claimant or not, which is, in my understanding, the definition of who is eligible to be in the class.

And so from that point of view,
all of these 100 claims potentially could -- 100 people could be in the SEC class. And I agree with what Mark said earlier, in that if you look at these 100 claims as a sample of the 4,163, perhaps not random, but, as I said, at least as a sample, then you could get an idea of how many of these 4,163 have potential for neutron exposure.

Obviously, 50 of them are already in the SEC class, so by that definition I would say on the face of the analysis that is already done, 50 of these 100 people who are not in the NDRP are eligible to be in the SEC class because they are already in it.

DR. ULSH: Okay. That was Arjun Makhijani, by the way. This is Brant Ulsh. Arjun, you asked a specific question about what I mean when I say "for whom it could make a difference," and let me give you a definition.

If someone is already in the SEC class -- in other words, out of that group of
100, 50 of them are already in the SEC class, if we add the Ruttenber data as another criterion, it is not going to make one whit of difference for them because they are already in. You can't get in twice. They could have one rem, 10 rem, 1,000 rem of neutron exposure, and it will not make a single bit of difference for them because they are already in the SEC class.

DR. MAKHJANI: No, no. I --

DR. ULSH: Similarly, if -- no, let me finish, please. Similarly, if they have already been exposed, if they have already been compensated due to dose reconstruction, it will not make a single bit of difference. So -- and it is true that DOL expanded the criteria for entry into the SEC class to add work in Building 881.

Now there is no reason for us to think -- there is no evidence to suggest that the patterns that we observed in the 100 that we looked at in detail, that that would be any
different if we looked at all 4,100. So that
is why -- that is what I mean when I say "for
whom it would make a difference." It is,
"will it make a difference in the compensation
decision for those people?"

DR. MAKHJANI: Yes, that is what
I am struggling with for the question of
eligibility for the SEC class. If you ignore
the fact that they are claimants, and the
outcome of their cases, and just look at this
as a sample of the 4,163 as a technical and
statistical question, then you would find that
50 of the people who are not in the NDRP but
are in the Ruttenber database are part of the
SEC class already, as it has been determined.

So my -- and then, one may be by
your additional investigation. So at this
stage, I think, based on the investigations,
one would say that if one took a sample of the
4,163, one would find, by current criteria,
that 51 percent of them would be in the SEC
class. Is that wrong?
DR. ULSH: Yes, because of the expanded criteria that DOL uses for entry into the class.

DR. MAKHIJANI: Okay. So then --

DR. ULSH: Fifty of the 100 are already in the SEC.

DR. MAKHIJANI: Yes. So, but they are not in the NDRP.

DR. ULSH: That is correct.

DR. MAKHIJANI: So out of the 4,163, we might find more than 2,000 people who are eligible for the SEC, as the analysis stands now. That is my understanding of it.

DR. ULSH: Well, okay, if we make the assumption that the 100 is represented -- a representative sample, then by definition if you scale up, half of them -- even if we did not -- even if DOL decides not to use the Ruttenber data as the criteria, about half of those people, should they file a claim, will be in the SEC class anyway.

DR. MAKHIJANI: But they may not
be. I mean, this is -- this is something we are inferring, where the question is, is how complete is the NDRP for people to determine their neutron dose potential? That is the focus of a lot of your report. By the criteria -- by the findings in the report, it would appear that many of the 4,163 people who are not in the NDRP did have neutron exposure potential by the current SEC criteria. That is the thing I am trying to --

DR. NETON: I think that is a false assumption, Arjun. This is Jim Neton. You know, if you go strictly by the technical merit of both reports, you can't come to that conclusion. You have to reach out and add in the class that the Department of Labor has expanded to mean, you know, that are in the SEC. That is not a valid comparison when you are comparing two databases.

DR. MAKHIJANI: Well, I guess the undercurrent of the NIOSH position is that the
people who are on the SEC class who are not on
the NDRP are wrongly in the SEC class. That is --

DR. NETON: We are evaluating two
databases, and the technical merit valuation
of those two databases stands on its own
merit. You can't start adding in Building 881
people and say that the NDRP is wrong.

DR. ULSH: Because you also have
to consider that the Ruttenber database, the
Ruttenber studies, also did not consider
Building 881 a neutron building. Regardless
of that, the class, as DOL has defined it,
does include Building 881.

 Quite frankly, my opinion of
whether that is a good or bad decision is
completely irrelevant. DOL has determined
that that is a criteria for entry into the
class, and so it is.

DR. MAURO: Brant, this is John
Mauro. I have a question about --

DR. MAKHIJANI: Well, these 50
were in 881, then.

DR. ULSH: I'm sorry, I didn't catch that. What?

DR. MAKHIJANI: Ruttenber didn't have 881 in his criteria, their criteria. So these 50 cases, then, are in the SEC class from the Ruttenber database, but they would then probably not be in Building 881.

DR. ULSH: No, that's not true. Ruttenber used a different way of assigning neutron doses. They assigned them based on job class. Now, when they listed neutron buildings, they listed the exact same list that the NDRP did.

DR. MAKHIJANI: Right.

DR. MAURO: Brant, what would be the problem --

DR. MAKHIJANI: I see the point.

DR. MAURO: -- with adding the Ruttenber data as part of the definition of the class? In other words, right now I am hearing that the definition of a class is done
in a way which identifies buildings. And by
doing so, there is a high level of assurance
that you have captured everyone that had the
potential for neutron exposures over the time
period of interest, and perhaps more.

And what I am hearing, though, well, there is -- you can actually expand the
definition a little bit, and maybe catch a few
more people, if you were to include all of the
people that are in the Ruttenber database,
which is another way of trying to identify
people with neutron exposures. It is sort of
like a Venn diagram, I think is what it's
called.

But I'm hearing some resistance to
that, and I -- the reason I'm hearing it is
that you don't believe that the -- the way in
which the Ruttenber data defined people with a
potential for neutron exposure was robust
enough to make it into the definition of the
class.

DR. ULSH: You are on the right
track there, John, in terms of characterizing my thinking, although I am approaching this from a different goal. I am not trying to exclude anyone from the class, and I am not trying to maximize the number of people.

All I am saying is -- and this is a purely scientific question -- what is the most scientifically robust way of the two -- the Ruttenber or NDRP -- to decide who was assigned -- who was exposed to neutrons? And my point is that if I am given the choice between two studies, one of which relies on primary dosimetry data, goes back and rereads the film, the actual films themselves, the other study relies on -- it's an epi study, so it's designed to do epidemiological purposes, and, quite frankly, a lot of epi studies do not give the level of attention to the dosimetry. They focus on other aspects that are more important for an epi study.

Furthermore, the report of the Ruttenber study itself clearly indicates that
the NDRP methodology is superior. It simply was not available to them at the time. Given the choice between the two, my conclusion is that the NDRP provides a more scientifically robust and reliable method for determining who was actually neutron exposed.

Now if DOL decides to add the Ruttenber database as a criteria for entry into the class, fine, that is their decision. I have no problem.

DR. MAURO: Isn't that the essence of what we are talking about right now, whether or not that decision is appropriate or not?

DR. ULSH: I can't speak to the appropriateness of it. All I can tell you is --

DR. MAURO: Isn't that where this is all taking us? I mean, in the end, we are really saying, well, should we expand the definition to include the Ruttenber data? Because maybe that is a different way of
evaluating who should be in the class.

But if -- I guess from a scientific point of view, if it was reasonable that, yes, that is another way to figure out who might have gotten some neutron exposure, well, then one would say, yes, maybe you should be including that group in the class.

If it turns out that the way in which it was done was such that it isn't as robust as the method that you folks have used, and, therefore, should not be one of the criteria or ways in which we include people within the SEC, so, I mean, it comes down to a very -- that simple question.

See, you posed it as an "or." You know, am I going to use Ruttenber, or am I going to use NDRP? And I'm saying -- I say, well, how come we are not using both? And there has got to be an answer to -- if you decide that both are not going to be used, you are going to have to pick one, I would understand why you would say, yes, maybe there
is good reason -- if you are going to have to pick one, we are going to go with the one you picked.

But I don't think that's -- I think the question is broader than that. Perhaps you don't have to pick one; you could pick both.

DR. ULSH: Sure. DOL could very well say, we are going to use the NDRP, and in addition we are going to use the Ruttenber data. If they decide that, I mean, that is entirely within their prerogative to do so.

DR. MAURO: I'm sorry to jump in like this, but they are going to look to you and ask the question, well, you know, was the Ruttenber approach for identifying people with the potential for neutron exposure also a fairly good way to do things? And, if so, then I think that, you know, they are going to need your help in making that decision.

MR. ELLIOTT: This is Larry Elliott, John. And our report stops short of
making a recommendation on -- in that regard. We simply -- Brant and the team that has done this evaluation's efforts have been straightforward to try to identify, by comparison, which is the most scientifically robust dataset. And this report speaks to that on its own merits.

And Department of Labor has the report now. They will look into this report. They may choose to examine some more of the 4,136 in some way. If they ask us for further comment or opinion or scientific evaluation, we will have to take that up if they approach us with that.

DR. MAURO: Larry, and you know what I heard is that you folks did a little homework to check to see, well, what the impacts might be if they did that. And your indication is it is modest. And I would say, well, that is really not the question at hand, you know, if you were to include it, what would really happen?
The real question is, should it be included? And I think should it be included is a judgment call on whether or not there is a group of people that probably should be included within the class because they did have a potential for neutron exposure. If that judgment is to be made by Labor, then that is where the judgment will lie.

DR. NETON: Yes, I agree, John. This is Jim Neton. I mean, the report clearly defines, describes, how both studies were done. And Brant has described that here in some detail, and it is all in there, and you're right. The question is, should you use one, the other, or both?

CHAIRMAN GRIFFON: That is the question. This is Mark Griffon. I think we are going to end up going around in circles a little bit, so I am going to try to truncate it here. I wanted to hear from other work group members, if other work group members had the opportunity to review this or have any --
any initial thoughts anyway. I know we haven't had a lot of time with the report.

MEMBER MUNN: This is Wanda. I am certainly glad to make a brief comment, although I don't think what I have to say will add anything. It is quite clear to me that an enormous amount of work has been done both at the group level and individually with respect to this database. And I say "this database" rather than "these databases" because it is also fairly clear that there is good evidence to support the work that has been done and redone to identify the proper individuals for this SEC.

Whether we move forward with it any further seems to be a moot point. It is very difficult to see how any additional work could be done than has been done already. The report that we have been given just last week, with respect to the work that has been done by NIOSH, is clear. It, I believe, covers all of the issues.
Dr. Ulsh today has made a very good summation of the findings that we have, and it is difficult to see where this working group and NIOSH could take this further.

I personally am satisfied with the work that has been done. If there are additional administrative decisions to be made, it clearly is outside the purview of this group and is in the hands of other organizations.

MEMBER PRESLEY: This is Bob Presley. I agree with that 100 percent. I don't think we are going to settle anything, and everything looks in good shape to me.

MEMBER GIBSON: Mark, this is Mike. I feel -- it just sounds like to me that SC&A still has some legitimate concerns. And, you know, I think NIOSH has responded to the concerns, but I don't think that necessarily satisfies the concerns that they have.

CHAIRMAN GRIFFON: Yes. And,
Mike, this is Mark Griffon. I would agree
with that for sure. I think at the very
minimum I want to see, you know, the -- just
to be able to go through the spreadsheets that
Brant referenced and he will -- he said he
would share them on the O: drive with us, so
that is not a problem.

But also, I think -- so that would
be one action item I would ask for out of this
meeting is to share the analysis files with us
and SC&A. The second would be if we can -- I
know, Larry, you said that you sent the report
to Margaret.

I think we need to -- because of
her relationship with the community there, I
think it is really important that we let --
that we, you know, solicit comments from her
on this, and whether it -- you know, she is in
agreement with this or has, you know, some
technical comments, but, you know, whatever.
I think we need to try to get comments from
her on the report. So at least those two
actions.

I don't know if you -- Larry, do you agree with that? Or Brant?

MEMBER MUNN: This is Wanda. Before Larry or Brant answers that, did I misread the report? I was of the impression that an attempt had been made to obtain any comment prior to the issuance of the report, and there had been no response. Was I incorrect?

CHAIRMAN GRIFFON: Well, I think there was some attempt to communicate with Margaret on some technical questions, and then, I am not sure why, but, yes, it -- I read that, too, Wanda, that I think it was in middle May or late May where you were trying to get hold of Margaret for some technical questions on the database and weren't getting phone calls returned. But we know she is around.

I mean, I don't think -- Larry said that she hasn't seen the report until
this morning I think was what you said, Larry. And I think we should let her see the final product anyway, regardless of why she wasn't, you know, getting back to them during the process.

MR. ELLIOTT: This is Larry Elliott. And yes, Wanda, I think Mark is correct. You are somewhat mistaken. The report does not say that Margaret Ruttenber was asked for comment on the report and didn't provide that. The report says that we tried to gain clarification and additional insight from her on a few technical points, and unfortunately she was non-responsive. Mark, I don't have a problem with you guys -- if that is what the working group wants to do, to approach Margaret Ruttenber and seek her comment on this report, that's fine.

CHAIRMAN GRIFFON: I think that -- I mean, that's my position right now, Larry. And I think, you know, if -- I mean, we need to certainly get her to weigh in because I
know that she has worked with a lot of the workers out there before, and, you know, they have asked if she -- Terrie very specifically put this question on the table. I think it is important that we get, you know, her opinion on the report.

And then, I would personally like to see the analysis of it, just to understand a little better, you know, of those 100 cases and how the triage process -- I listened to it, and I think I understand it pretty well, but I always like to -- it might be useful for us to look through the spreadsheet.

At this point, I mean, you know, other than reviewing these materials that are posted on the 0: drive, I am not ready to say -- you know, to task SC&A with any, you know, extensive further review. But, you know, I think, you know, just at least to -- John, I think you can, under your current task, review data that is posted in support of this report sort of.
But I don't want any more expansive, you know, review at this point. I think that -- if we decide to do that, that has to probably -- that should go back to the full Board anyway, so --

DR. MAURO: No, we were not planning any action other than this phone call.

CHAIRMAN GRIFFON: Okay.

DR. MAKHIJANI: Well, if -- Mark, let me get some clarity on what you have just said. You said that some -- some more -- a brief looking into the background and analysis of the report would be in order, but not sort of an extensive review.

CHAIRMAN GRIFFON: That is my -- yes.

DR. MAKHIJANI: Is that what -- so you are saying that we should do a little bit more in terms of just understanding the report and what went into it.

CHAIRMAN GRIFFON: Understanding
of the numbers and stuff, yes. And then, only
to the extent that it is reviewing the
analysis files that are put up. But, I mean,
if you -- you know, for instance --

    DR. MAKHIJANI: If we could have
the analysis files for these 100, that would
be the most sort of brief thing we could do
before the Board meeting.

    DR. MAURO: Mark, I have to ask a
question, because it is troubling me, and that
is that if the question really is not so much
-- well, listen, if we were to include all
these folks, these 4,000, it really wouldn't
have very much of an impact, and that is what
the 100 sampling did.

    But that's not the question in
front of us. The question is, notwithstanding
the result of that, the question really is,
should these 4,000 people be part of the
definition of the -- because the Ruttenber
data is fundamentally sound. And if they
claim that these people had a potential for
neutron exposure, they have to be included and under consideration. That really is the heart of the question, not what the impacts would be if you included them.

CHAIRMAN GRIFFON: Yes. I think you're right. But I want to -- I mean, I think we need to look at the way NIOSH did their analysis first. But I think you're right. And that's a decision -- perhaps as Larry or Brant -- I forget who stated it, but the idea of, how DOL wants to use this. You know, that's sort of up to the -- up to Labor, but it doesn't, you know, preclude us from weighing in about it.

So, you know, I think I just -- I am not at a -- at a point where I want to, you know, make any motion for whether this -- you know, that approach is appropriate or not, John. I think I just don't know enough about those 4,000 versus the 100 sampling, et cetera.

You know, if you look at it like
Arjun did, you can -- you can say, well, it's 51 percent. But that's including that Building 881, so I think I want to have a chance -- an opportunity to sort that out a little more in my mind, and maybe, you know, bring the case before the full Board at some point.

MR. ELLIOTT: Mark, this is Larry Elliott. I might suggest that a little bit of forbearance here might benefit everybody, in that if we allowed DOL time to digest this report, and determine how they are going to react to it, and how they are going to utilize or not utilize the Ruttenber database, this all may go away.

CHAIRMAN GRIFFON: Sure. That is true. And DOL I assume has -- well, it is publicly available, so -- but I'm sure you have given them copies of the report.

MR. ELLIOTT: Well, yes.

CHAIRMAN GRIFFON: Yes.

MR. ELLIOTT: They are the primary
target audience for this report. They are the ones that need to have it to adjudicate under it.

CHAIRMAN GRIFFON: Yes. And that is the other question. I mean, we always go -- we always ask our questions of DOL of, you know, implementation of the class. And this is the implementation of the class question, right? So I think in that respect we could ask them at a Board meeting. They may not be prepared at this one because they have just gotten the report. But we could ask them that sort of question at a Board meeting. Is that your understanding, Larry? I mean --

MR. ELLIOTT: Yes, that is -- you know, I would hope that they have had -- it's 19 pages. I hope they had time to read it over the weekend, and by next week they will have some sense of which direction they are going to go perhaps. I will alert them that they can anticipate a question of that sort.

CHAIRMAN GRIFFON: Yes, definitely
alert them that they can anticipate that.

All right. I think that's a good place to leave it. The one thing I wanted to ask is -- we have a lot of people on the phone call, and I think members of the public might have -- Terrie, I tried to get your one question out there, but if you or others have other questions at this point.

MS. BOLLER: Mark, I have one question. I think there was a question -- this is Carolyn at Senator Udall's office. I think there was a question about how many people are on the NDRP list.

CHAIRMAN GRIFFON: Oh, yes. Mutty, did you ever find that question? The answer?

MR. SHARFI: Yes. Is the question for during the SEC period or just in the NDRP total?

CHAIRMAN GRIFFON: Well, as long as we are comparing apples and apples, I think the 4,163 was during the SEC period, right?
So I think I want to know --

MS. BOLLER: Well, what I would like to --

CHAIRMAN GRIFFON: -- the SEC period.

MS. BOLLER: Sorry, Mark. What I would like to know is how many people during the SEC period are on the list for NDRP? And how many of those names on that list match -- this is not going to come out right, but match the Ruttenber list?

So, like, is Joe Blow on both of them? Or is he only on one? So are we really talking about 4,000-plus? Or some of that 4,000 already included? It's that 50 percent. Does that make sense?

CHAIRMAN GRIFFON: Yes, yes.

MS. BOLLER: Am I rambling?

CHAIRMAN GRIFFON: Mutty, did you get that question? I mean, I think you presented the -- I had that question, too. Is the 4,163 workers that we have been talking
about, is that additionally or above the ones identified in the NDRP?

DR. ULSH: This is Brant. The 4,163 is the people who were in -- who had positive neutron dose in the Ruttenber, but not in the NDRP.

CHAIRMAN GRIFFON: Right.

DR. ULSH: Does that answer your question?

CHAIRMAN GRIFFON: Well, how many were in the NDRP during that same time period where you got the 4,163 number?

DR. ULSH: I don't know. Mutty, do you know?

MR. SHARFI: Mark, I can give you some indication by the fact that there are 5,000 and odd people in the SEC currently, if I remember the number correctly. So, for the SEC period it would probably be something on that same order. In the NDRP, it would be something less, obviously. So --

MEMBER MUNN: This is Wanda.
MR. SHARFI: -- we are talking on
the order of 5,000.

MEMBER MUNN: This is Wanda.
Remember, the report indicates that there are
also 486 individuals on the NDRP list that are
not on the Ruttenber database.

CHAIRMAN GRIFFON: Right.

MEMBER MUNN: So you can't simply
say one excludes 4,163 and not include the
fact that it does, nevertheless, include 486
that do not appear in that 4,163.

CHAIRMAN GRIFFON: Yes, yes, which
adds a little more uncertainty.

MS. BOLLER: Yes.

CHAIRMAN GRIFFON: That's true.
Anyway, I'm not sure we have an answer from
Mutty on that number, but we can get that down
the line. I mean, I don't see that as
critical right now.

MR. SHARFI: There is about 3,700
people that have pre-1967 dose in the NDRP. I
believe -- and Brant can correct me -- I think
the 4,163 are people that don't have a matching year. Is that correct, Brant? Or is that any match?

DR. ULSH: How about if we get back to him on this? I don't want to give the --

CHAIRMAN GRIFFON: Yes, this is why we want the analysis files, okay?

DR. ULSH: Yes.

CHAIRMAN GRIFFON: Let's leave it there.

Any other questions from the public?

MS. BARRIE: Yes. This is Terrie, and thank you, Mark, for asking that question.

CHAIRMAN GRIFFON: Terrie Barrie?

MS. BARRIE: Yes, Terrie Barrie with ANWAG.

CHAIRMAN GRIFFON: Yes.

MS. BARRIE: And what I would like to -- since you are going to be going to the Department of Labor eventually to have them
finalize who should be included in the class, I honestly think that they should get a report from SC&A to balance out -- and not just give DOL the NIOSH report. I think it needs to be balanced out to be fair, if you understand what I am trying to get at.

CHAIRMAN GRIFFON: Yes. And I am stopping short right now of tasking SC&A with, you know, developing a report. But it gives us a couple of weeks until the Board meeting, and we will have an update at the Board meeting on this.

MS. BARRIE: Okay.

CHAIRMAN GRIFFON: And in the meantime, I am hoping that the data will be posted, and we will have a few -- at least a few days to look at that data. And we may come to the same conclusion that we need -- you know, but I am stopping short right today, if that's okay, Terrie. But we will -- we will bring it up at the Cincinnati meeting next week during my work group update.
MS. BARRIE: Okay.

CHAIRMAN GRIFFON: And if I forget, you will remind me.

MS. BARRIE: I will.

CHAIRMAN GRIFFON: Okay.

MS. BARRIE: Thanks.

CHAIRMAN GRIFFON: All right.

MR. McKEEL: This is Dan McKeel.

CHAIRMAN GRIFFON: Hi, Dan.

MR. McKEEL: Hi. I have a comment I guess. My comment is, it seems to me there have been questions asked about how many people total are in the NDRP, how many of them were present during the SEC period, and same sort of thing for the Ruttenber dataset.

And it was my understanding that the basic analysis that was going to be done is a detailed comparison and characterization of those two datasets. So it seems to me that the NIOSH report should have all of that data clearly specified in a table. It could be a very short table, you know, four cells, but
that that information should be in the NIOSH report. And if it's not, then that should be added as an addendum.

And the other comment I have that is related to that is Terrie Barrie obtained, via the FOIA mechanism, some email communications leading up to this report. And one that I remember -- I don't remember the exact details, but Brant Ulsh commented in particular on a discrepancy between the two datasets where there were cases in the Ruttenber dataset that did not appear in the NDRP dataset.

And I think that is very important because, as I remember the previous discussions, the folks at NIOSH, including Brant and Larry Elliott and several others, had made the comment that the reason that the Ruttenber dataset was not examined for the last two years was that there was no significant difference between the two.

And today -- and in the report it
is quite clear that there are many differences between the two datasets, even though they may have originated from the same original source. But the two datasets are different.

And when I tried to read through those 19 pages that I got just recently, on Friday I think, I couldn't clearly discern, you know, an A versus B comparison. So I would just like to make the comment from one observer that that report is not clear about what the basic mission of the NIOSH analysis was supposed to be as I understood it.

And for that reason, I would like to endorse the idea that I would like SC&A -- I understand that this may be premature and that the Board needs to do that tasking, but I certainly would like to endorse the concept that eventually SC&A needs to do their own independent characterization and comparison of those two datasets.

Thank you.

CHAIRMAN GRIFFON: Thank you, Dan.
And I tend to agree that a couple of tables in this report might have been helpful. But we are going to get that backup support data and look through it certainly, and I think that might help us to, with the written report, understand this a little better.

But thanks -- thanks for your comment. And we will -- again, I will bring that up at the full Board meeting, and whether we go forward with tasking we will try to determine there.

Any other comments at this point?

(No response.)

I think that is where I am prepared to leave it. So there is just two actions on the table. One is to get the supporting analytical data on the O: drive, and the other would be to -- if NIOSH could -- I know you have made attempts already this morning, but to solicit comments from Margaret Ruttenber on the report.

MR. ELLIOTT: No, Mark, I think
that's a work group effort. NIOSH has stated its position in this report. You know, this has been cleared, and it's an institute report. If you guys want to approach Margaret to seek her comment, that's your prerogative.

CHAIRMAN GRIFFON: Okay. Then, I will take that action on myself. All right. Any other comments?

MS. PADILLA: My name is Judy Padilla. I have one question.

CHAIRMAN GRIFFON: Go ahead, Judy.

MS. PADILLA: I recently received a letter from Rachel Leiton. In that letter she said that NIOSH has exclusive responsibility to conduct the dose reconstruction. Okay. That being true, NIOSH is the final say in the 50 percent.

And my question is, I would like to know if there is verification and validation of the software of the matrices from NIOSH? And why can't the people who are denied see these things?
CHAIRMAN GRIFFON: Well, I think that is a little broader question, but, Jim Neton, do you want to --

DR. NETON: Yes, this is Jim Neton. It's coincidental I guess, but just as of Friday we put on our website a verification of the NIOSH IREP software that was done by our contractor. It is under the IREP tool page on our website, and there is a 500-page report out there that goes through in some detail a review of all of the calculations that were done. I will be reporting on this at the Advisory Board meeting next week in Cincinnati.

CHAIRMAN GRIFFON: And maybe listen in on the Cincinnati Board meeting, if you can, Judy. Dial in for that. You might, you know, get further on your answer there.

MS. PADILLA: I'll do that.

CHAIRMAN GRIFFON: More information.

Okay. Anything else?
MEMBER PRESLEY: This is Bob. I'm in good shape.

CHAIRMAN GRIFFON: All right. I think we are ready to break at this point, if there are no other comments.

(No response.)

Thank you all, and we will be looking for that data. And we will discuss it more at the full Board meeting.

(Whereupon, the above-entitled matter went off the record at 11:23 a.m.)