The Work Group met telephonically at 10:30 a.m., Eastern Daylight Time, Mark Griffon, Chairman, presiding.

PRESENT:

MARK GRIFFON, Chairman
DAVID Kotelchuck
WANDA I. MUNN
PHILLIP SCHOFIELD
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ALSO PRESENT:

TED KATZ, Designated Federal Official
TERRIE BARRIE
SCOTT BISON
JIM BOGARD, NIOSH ORAU
JOE FITZGERALD, SC&A
LARA HUGHES, NIOSH ORAU
JOSH KINMAN, NIOSH ORAU
ARJUN MAKHIJANI, SC&A
JOHN MAURO, SC&A
DAN McKEEL
JIM NETON, NIOSH ORAU
MICHAEL RAFKY, HHS
LaVON RUTHERFORD, NIOSH ORAU
MUTTY SHARFI, NIOSH ORAU
DAN STANESCU, NIOSH ORAU
JOHN STIVER, SC&A
CONTENTS

Welcome, Roll Call, and Introduction 4

NIOSH Follow-up Efforts on SEC-00192 RFP Tritium Issues 5

NIOSH Evaluation of Petitioner Concerns about Data Falsification and/or Data Invalidation in RFP Building 123 Based on Worker Allegations 47

July ABRWH Meeting; NIOSH and Work Group Plans 64
MR. KATZ: All right. This is the Advisory Board on Radiation and Worker Health, Rocky Flats Work Group. Let's get started with roll call before we formally begin the meeting.

We're speaking about specific work sites. So please all agency-related people speak to conflict of interest as well when you report in. So let's begin with Board Members with the Chair.

(Roll call.)

MR. KATZ: Okay. So welcome, everybody. There is an agenda, but it was not posted on time. For the meeting, I've distributed it. It's very simple anyway, and the Chair can go over it.

Let me just remind everyone before the Chair takes over to please mute your phones, except when you're addressing the
group. If you don't have a mute button, *6 will mute your phone, and then to come off of mute you do the same again, *6. So please do that at this point, everyone.

DR. MAKHIJANI: Hello, Ted. This is Arjun, SC&A. No conflict.

MR. KATZ: Okay. Thank you, Arjun.

Also, please don't put the call on hold at any point, but hang up and dial back in if you need to go on hold.

So thank you, and, Mark, it's your meeting.

CHAIRMAN GRIFFON: Thank you, Ted.

Yes, I wanted to do a quick little apology for -- the agenda out and also, you know, we did intend to have this as a face-to-face meeting, but since there was little time between NIOSH's White Papers being available to the public and a chance for the Work Group or SC&A to review them, we thought best to
have just a phone meeting now and then schedule a face-to-face in the near future, you know, hopefully soon after the Board meeting in Idaho.

So this is going to be more of an update, I think, from NIOSH since I doubt SC&A has had a lot of opportunity to look through this and review it. But the main focus of the agenda is the recent White Papers. One is on the evaluation of petitioner concerns about data falsification, specifically related to Building 123, and the other is on the tritium issues.

And then, I guess, LaVon will also give an update on the status of the other items, the thorium issues, neptunium issues.

So at this point I think I'll turn it over to NIOSH, I think LaVon, but to NIOSH to go over, I think, either White Paper, whichever you prefer to start with.

MR. RUTHERFORD: Well, okay.
Mark, this is LaVon Rutherford. I did actually upload a presentation into that Live Meeting, and so basically all the presentation is is a summary of the two White Papers, and if needed ultimately at the Board meeting, it would be used there as well.

So if the Board Members go to the Live Meeting, you can actually see this presentation as I go through it. But, again, it's basically just a summary of the White Papers and where we are with the other White Papers.

So with that, basically there are five White Papers. We've actually completed two of those White Papers and there's five total. The first White Paper is a follow-up effort on the tritium issues. We did complete that and get that out in late June.

I know that the petitioner did not get that document until at the earliest would
have been Wednesday. It was released from ADC review, and so I know the petitioners had very little time to review that document.

The other document is the Evaluation of Petitioner Concerns about Data Falsification and Data Invalidation in Rocky Flats Plant Building 123. Again, we got that document out in late June, and petitioner just received that document, again, on Wednesday at the earliest. I'm assuming that they received it on Wednesday. It was released Wednesday, and we were trying to get it to them on Wednesday.

Three other White Papers we're working on, the thorium strike White Paper, uranium-233. This is basically an update from the initial evaluation. We went back and did some additional research on that, and I'll give a little update on that one later.

Another one is neptunium, on the neptunium operation, and then there are other
thorium activities. Other thorium activities was actually during our data captures and interviews and some of our secured data captures identified a potential concern here that we felt like an additional White Paper should be developed, and I'll give an update on that as well as we go.

So the first White Paper I want to talk about is the tritium White Paper. Our follow-up efforts that we did on this one were we did additional data captures, both classified and unclassified. We went to LANL.

Because of the interactions between LANL, and knowing that a number of the Rocky Flats classified documents were shipped to LANL, we went to LANL in November of last year.

We went to OSTI and CBC in Denver, and DOE Legacy Management. All of those we went back and we did some additional data captures based on some keyword searches that were identified from our interviews that were
conducted back in November of last year. We also had some secure discussions with some technical people. We had secure interviews and other interviews, approximately 19 of those, and then as part of our follow-on efforts, as you remember, we had come up with basically a dose reconstruction approach for tritium that identified roughly 700 millirem per year for all years.

We wanted to go back and look and see if, one, based on the additional data captures and information, the classified interviews, was that still a bounding exposure scenario. As well, we wanted to look at was there enough additional information that we could come up with a little better modeling.

So our additional data captures and interviews did identify and confirm a potential for tritium exposure from contaminated shipping containers. I think we all knew that there was already identified
potential exposure from the units, processing
the units and such that the 1973 accident
cause and that those situations may exist.

However, when we had our
classified interviews, the additional
discussion identified a scenario where tritium
could be released from opening a shipping
container containing units or a unit. So
that additional scenario was identified.

Also, our data capture and our
interviews supported our previous finding that
all known incidents of tritium release are
below the release levels from the 1973
incident. And, in addition, we did not
identify any other sources of tritium exposure
beyond that previously evaluated, other than
the shipping container contamination release
scenario.

So our White Paper basically would
break down the tritium exposure in the three
periods. It's broken down into three periods
not because of changes in activities or during those periods; it's broken down based on the 1959 to '72 period when there was little to no tritium monitoring at all, and in 1973 the incident that occurred, and then the post 1973, so we broke it down into three separate exposure periods based on that.

So I'm going to start first with prior to the 1973 incident, the early years, and our approach to that and what we've learned since the Evaluation Report was presented.

Based on our interviews and document reviews, we feel the most likely chronic exposure area was from opening and working with shipping containers that contain units from other sites, those units being returned from the sites and having a release from those.

We actually have an exposure scenario that was developed from an incident
that occurred in August 30th, 1974, where 1.5 curies of tritium was released from a shipping container. Basically they opened a shipping container containing tritium and this release occurred.

Our basis for using a 1974 incident, recognizing that this is after the 1973 incident, the questions automatically come up of, well, why would you use an incident that occurred after the '73 incident and would it be representative of what occurred prior to that '73 incident.

Well, our basis for that is the background levels prior to the incident were being measured and were basically at background levels. So we had monitoring that was occurring over a period of time with no releases, and then you have a release event of an open container.

The quantity release was probably more typical of release from a shipping container.
container and more realistic of a chronic exposure, a daily exposure that instead of the incident-based sample or incident like the 1973 incident where you have an acute incident occurring and so this is more of a chronic exposure scenario for those early years that we felt like would be more typical of what would be seen.

Tritium was released to the workplace environment and not in the glovebox. So that we felt like was another good point. The release involved elemental tritium and tritium oxide like the event that occurred in 1973.

The shipping container wasn't used prior to 1973. I mean, you could argue back and forth of whether that really has much support, but it was in use, and so, you know, we do feel like it has a little basis for it.

The incident occurred close enough to the 1973 incident that workplace controls
were likely similar to prior to 1973. If you actually look at it, this shipping container event or the 1973 incident was completely different than this event. So the actual putting in workplace controls for containers coming back to the site had not really been identified as something that needed to be corrected.

If you look at the paper, we identify a document where they actually went back in early 1974 and started monitoring shipping containers and looking at these shipping containers to see if this was an exposure concern of opening them and ultimately later in 1974 is when that event occurred.

And then workplace controls were put in place after that. So we do feel that this is a good basis for using this event.

So the monitoring data from the 1974 incident, we had air samples that were
taken from June through September of 1974.

The average concentrations were around 5,343 picocuries per meter cubed, and the concentrations on August 30th were significantly higher, and that's when the release occurred of 37,676,609 picocuries per meter cubed.

Bioassay samples were taken. They indicated a high result of 32,320 picocuries per liter. There were work area smears taken, over 300 of those.

So based on the information and monitoring data we had available, we did a dose assessment for that 1974 incident. We took the largest urine sample of the 32,320 picocuries per liter. We used a start date of August 30th, 1974, and inserted this in.

We come out with a resulting dose that was less than one milirem. It is actually .15 milirem. So if we assume that
incident, you know, the next question is; okay. How often do you assume or how often would you assume that an incident would occur?

And not having a good indication of how often this did occur, we assumed one incident per day for 250 days. Basically this event occurred every day and results in 37 and a half millirem per year. We think that this is a reasonable estimate of the exposure that the individuals would receive in those years prior to the 1973 incident. So, therefore, for all unmonitored workers for tritium we will assume 37.5 millirem for all years prior to 1973.

The tritium exposure in 1973, the annual dose assigned based on the 1973 incident, the incident occurred from April 9th through April 25th in 1973 when a shipment of scrap plutonium from Lawrence Livermore was processed at Rocky Flats Plant in Building 779A.
Again, those will remember that the incident was not immediately recognized, and so individuals were not monitored until September of that year. So you're looking at roughly a little over five months later or around five months later that individuals were monitored.

Approximately 250 people were bioassayed for tritium. They had basically an action level of 10,000 picocuries per liter. They initially used undistilled samples to identify people. They identified roughly 19 people with elevated tritium. When they distilled samples and rechecked, there were five individuals above the action level.

So the five cases exceeding 10,000 picocuries per liter were reviewed from the final incident report, and then all cases were modeled to determine the best fit for the urine data, which then would give the most likely dose.
If you remember, we originally in our Evaluation Report, I think, came up with around 700 millirem. That was a worst case scenario taking the concentration, a urine concentration from the highest individual, backdating it or assuming an acute exposure back on the release date, which gave us a bounding dose scenario.

That really did not fit the data real well. So we went back. We looked at the data again to see what would actually come up with the best fit data. Based on that, we went through each case, and then Case H best fit exposure scenario resulted in the highest dose of 84 millirem.

Again, this 84 millirem was based on limited information. We had very few samples from this individual, and based on their work history, we could only assume the intake occurred on the first day of the event.

So that came up with the high exposure of 84
The tritium doses for the 1973 period would be assigned to all unmonitored workers at 84 millirem.

For the post 1973 period, we did a coworker analysis, the coworker analysis performed using the 1974-1975 tritium bioassay data. We had 38 individuals with tritium data in 1974 and 37 individuals with tritium data in 1975. Because tritium was only present as a contaminant, there were not large groups of individuals placed on routine bioassay for tritium.

What they did was one-tenth of the urine samples collected for plutonium were analyzed for tritium. Also, there were samples that were taken or bioassay samples taken when they felt there was an additional concern for tritium exposure.

The dose assessment, again, for 1974 and '75, it was assumed that each worker
had a potential for exposure throughout the year. The 95th percentile was used because only one-tenth of the population was sampled. So we took the 37/38 data points for each year. We assumed that the workers had a potential for exposure throughout the year to come up with their intakes, and then we also assume the 95th percentile was used because only one-tenth of the population was sampled.

That coworker study for the '74-'75 period yielded doses of zero millirem for everyone. So for the '74-'75 period, it would be zero millirem.

Also for post-1974, the same dose would be assigned for unmonitored workers. Based on the limited bioassay data we do have, it is consistent with the 1974-1975 data, and we do know that there were a number of workplace controls that were put in place at that period.

So in summary, the period prior to
1973, we used the exposure scenario of opening the shipping container and a chronic release of tritium from a shipping container, 1.5 curies, resulting in 37.5 millirem. The period of 1973, we used the 1973 incident as our bounding exposure. Using the best fit data, we come up with 84 millirem per that year, and then post 1973, based on our coworker analysis, we would not assign any exposure for the tritium during that period.

That pretty much summarizes the tritium White Paper, and I can answer any questions before we go on to the next White Paper or if you want to wait, whatever you want to do.

CHAIRMAN GRIFFON: Yes. I mean, maybe take a second and just see if anyone has any questions.

I mean, I haven't had a lot of time to look at this, and I don't know if SC&A has reviewed this. So certainly when we do
the face-to-face, I expect SC&A will have had time, more time to go through it and, you know, have a more formal response.

But, I mean, one question I would have right away is it seems like you have selected -- you said that the one incident was more representative of chronic exposures and, therefore, you end up applying it or assigning it for the 250 days. I mean, is that backed up by operational data or is that simply because it was a much lower number than the other 1973 incident?

MR. RUTHERFORD: No, no. It's not because it's a lower number. I think it's because, you know, when we interviewed individuals, that issue was brought up.

We knew that the four incidents that occurred that had been defined, '68, 1973; there were a couple of other incidents. All of the incidents, other than the '73 incident, were well below the 1973 incident
and did not involve tritium oxide. So the exposure from that '73 incident was definitely the higher one of the incidents, but what we looked at based on that interview was, okay, you know, do we have a scenario where, you know, there could be a chronic exposure from these unit shipping containers being returned to the site and being opened up and a release occurring, unknown.

You know, we did have indication from our interviews that there were bubblers in place and that at times they were told that they needed to drink a lot of fluids to remove the tritium from their body. So we knew that scenario.

And so what we went back to do is to try to actually come up with what would be a good source number for that scenario, and then try to develop a model based on that and see how that compared to the 1973 incident,
and so, you know, that's what we did. Now, I think that --

CHAIRMAN GRIFFON: And then you're also saying or, I mean, the evidence was that the incident, the '73 incident which resulted in the higher exposures, was a more unique circumstance?

MR. RUTHERFORD: Yes, correct.

CHAIRMAN GRIFFON: Okay. And I don't know if others from the Work Group had any questions or not.

I mean, again, I think when we come face to face, we might have more on this, but if Work Group Members have questions or SC&A can weigh in, that would be great.

DR. FITZGERALD: Yes. Mark, this is Joe.

LaVon, I guess one question I have, and I think you touched upon it earlier, is, you know, sort of a conundrum of choosing 1974, which is roughly a year after the '73
incident, you know, and the issue of the returns, as we heard, really gets down to how careful Pantex was.

And of course, '73 was Livermore, but in general most of the units came back from Pantex, and the issue was, you know, Pantex was supposed to pump down the pits, supposed to make sure that, you know, there was no substantial tritium contamination on those as they came back, and of course, that wasn't done very well obviously.

There was anywhere from small residual to a lot more contamination in some batches, and so my question would be, given the flap that happened in '73 -- and this was a major flap, having the State of Colorado actually discover tritium coming out of Rocky that Rocky wasn't aware of; so you can only imagine that was a very major issue for the complex as a whole -- how confident are we that the '74 scenario in terms of the event
and the measurements would, in fact, be representative of pre-'73, given the fact that it's likely between Rocky and Pantex there was a major discussion about the fact that Pantex wasn't decontaminating their pits before returning them to Rocky?

And I would suspect after '73 there was quite a bit of effort to make sure those pits were very, very clean of tritium, you know, from there on out. I just don't know.

But it would seem to me that that would be a question as to how -- and this gets back to Mark's question -- how normalized are the activities. How clear is it that the conditions are the same that you could use this event going back in time when, in fact, during '73 it had to have been a major review of operations and a major upgrade of how Pantex was doing business with the pits before they were returned to Rocky Flats?
MR. RUTHERFORD: And, Joe, I think, I mean, that is definitely the issue that we all had here and went back and forth on. I think the biggest reason that we felt that this was the right one or that the controls had not changed was based on that letter that is referenced in the site research or it is referenced in our paper.

Basically what they did was the Rocky Flats Plant -- first of all, remember that the incident that occurred in 1973 was not opening a shipping container and having this release scenario. This was actually processing, doing some process work that caused this major release.

So it wasn't necessarily known or it wasn't clear that this release mechanism of a shipping container wasn't a potential major problem I don't think if you read the letter that is referenced. It is an October 21st, 1974 letter, and it basically says that, you
know, during the past six-month period, yeah, there's been sampling the atmosphere of and where possible smearing the material in each container that is received in a non-routine category at Rocky Flats.

And I'm reading this letter.

"The results of these tests have shown that a significant number of containers do have varying low levels of tritium contamination. Since Rocky Flats doesn't presently have a facility where these containers can be opened, the material cannot be processed. Therefore, effective upon receipt of this letter, Dow is establishing an additional requirement that must be met before non-routine SS or non-SS material will be received at Rocky Flats. The shipper must not only verify the tritium levels of the material to be sent, but must also check the tritium level of the shipping container. A statement specifying results of the verification must
appear on forms," dah, dah, dah.

So then it talks about the facilities in the process of being built at Rocky Flats that will allow containers contaminated with tritium opened, the material checked utilizing a smear sampling technique.

So it looks to me from the letter and based on this 1974 incident, they had started a program to check the containers as they came in.

They recognized that this is a potential concern, and then they had the release in September, and then ultimately in October this letter is sent out to the various sites that they would receive units.

So based on that, now, can I say definitively that the controls hadn't changed?

No, I can't, but I'm saying based on this letter that we felt like, okay, that early in 1974, probably after the '73 incident, review of the '73 incident, they said, "Okay. Here's
another potential scenario of the shipping containers."

They started a monitoring program of the shipping containers and as they were opened. They went through that period. They had the release in September of '74. Ultimately this letter comes out in October of '74.

So, I mean, that was the reason why we came up with and we said, you know, okay, this does seem like an event that's similar to what would have occurred prior to the 1973 incident.

Now, again, I know everybody hasn't had time to review this and actually review some of these letters and stuff. So, you know, that's basically how we came up with that though.

DR. FITZGERALD: Yes, I think we do need to look back at that, but I think that would be a line of inquiry just to firm up the
representatives of operations and whether there was a dramatic change in practice between Pantex and Rocky, and there might be certainly some correspondence.

They did a site-wide tritium evaluation, as you know. So it would seem that those sources would have been identified and there would have been some communications with Pantex. So that would be something I think we would look at.

DR. MAURO: This is John Mauro.

I did read the report this morning, and it's a very thorough treatment of the 1974 and the basis for the data you have and how you would reconstruct '74.

The idea though of using the '74 data as somehow surrogate -- I'm using the term loosely -- for pre-'73, we've been in this situation before, and I know we're talking about relatively small doses, but we have been in this situation before where you
have later data that you think somehow you can apply to earlier data.

And you just discussed one reason why maybe you could do that, but what we usually look for -- this is sort of just a think piece between now and when we go discuss this again -- you usually look for a hook that allows you to make a statement where you have some weight of evidence that says, "We think we could use the '74 data to apply to pre-'73, even though we lack" -- it sounds like you lack.

Everything I can tell, there is very little information on tritium measurements in plant for people who, I guess, disassembled or opened or handled these units. We'll call them "units."

But you do make quite a bit of mention in your draft -- not your draft -- your report regarding bubblers, and let me just speak for a second about that possibly
being a hook. I'm almost offering a line of investigation that might help beef up the fact that you're using '74 for pre-'73.

If there's bubbler data, if by "bubbler" I believe you mean you're passing the air through a column of water which if there's any tritiated water in the air, as it passes through this bubbler the bubbler will capture and hold the tritiated water, and then you measure the bubbler and you can see the concentrations of tritium or tritiated water.

The bubbler I do not believe will capture -- I'm not sure of this -- hydrogen, you know, the non-tritiated, the tritium, the hydrogen, but it would be a measure of the tritiated water that might be in the air, and you have that data.

Now, the hook that I'm thinking of, if it exists, and this is a question, is if there was ongoing bubbler sampling going on, you know, throughout, and I believe these
bubblers are continuous type of units, something like collecting an air particulate sample. You let the air just chronically pass through and you accumulate.

If you have bubbler data during the '74 time period, but you also have bubbler data pre-'73 which might have been located, as I understand, in the hoods; in other words, they were not necessarily bubbler data. They were there mainly -- and correct me if I'm wrong. I'm just trying to open up a line of inquiry.

I'm picturing that you've got a hood where when you receive your unit, that's where you would receive it and you have bubbler data there, but if that bubbler data is running all the time, and then, of course, the unit is then taken and the people do what they have to do with the unit; but if that bubbler data is still running so it's almost like a continuous tracking of what might be
going up the stack through the hood and up the stack as being a measure of how much -- an index.

We recognize that it's not a good quantitative, but it's a good qualitative indicator of do we have anything unusual going on in this bubbler data.

If you have bubbler data in '74 and you also have some bubbler data pre-'73 that you could say is a hook between the two time periods, it would be a way to make a statement of the type you just made that there's good reason to believe that whatever was going on pre-'73 by way of handling the amounts of tritium that might have become airborne, tritium gas or tritiated water, if you have some data there and you have some data in '74, you have the hook you're looking for.

And I did not get a sense -- I did get the sense that there was quite a bit of
bubbler data, but I did not get the sense that there was any way to compare bubbler data from '74 to pre-73. If that's at all possible, it gives you the hook you're looking for.

MR. RUTHERFORD: Yes, okay.

DR. MAURO: Did that make sense?

MR. RUTHERFORD: Yes, John, that does make sense. It does. I'm not sure that we have it, but I will definitely take that action to take a look at that and see if we can come up with that.

DR. FITZGERALD: Yes. I guess, LaVon, the other comment, somewhere in the White Paper there's a comment that there's no smear data predating the '73 event, and that's probably true.

I did find though they did a baseline survey in '73 which included the containers, and they do have smear data in the baseline survey dated October 12th, '73, and they did, you know, anywhere where there was a
source of tritium, potential source of tritium, they did a baseline survey of that area, smear samples, air samples.

I thought that data was maybe also helpful in terms of calibrating some of the levels that they observed in '73 that might be more typical of routine operations, and that was an overall package dated March 12th, '75, but it included the baseline surveys taken in October of '73.

And I think the SRDB on that is 68351.

MR. RUTHERFORD: Okay.

DR. MAKHIJANI: Hi. This is Arjun.

Could I ask a couple of questions?

CHAIRMAN GRIFFON: Yes, yes, go ahead, Arjun.

DR. MAKHIJANI: Now, the release in 1973 was for oxidized tritium and the others were tritium gas, right?
MR. RUTHERFORD: Yes.

DR. MAKHIJANI: So what was the cause of the oxidation of the tritium? Did it come that way from Livermore or was it oxidized by some process at Rocky Flats?

MR. RUTHERFORD: It was a process at Rocky Flats.

DR. MAKHIJANI: Okay. So I mean, given that this was different and it wasn't recognized by Rocky Flats, I mean, how can we establish or how has NIOSH established that these kinds of shipments were not occurring from Livermore or, for that matter, from Los Alamos that were undetected before 1973?

MR. RUTHERFORD: Well, the --

DR. MAKHIJANI: Not the tritium containers or bottles, but these cracked plutonium shipments that might have had tritium that was undetected because they weren't aware of it.

MR. RUTHERFORD: They actually
went back, and part of the incident report from the 1973 incident, they went back and they looked at previous shipments that could have actually contained tritium in concentrations and made potentially in that form.

They identified, I believe, three other shipments. All three of those shipments were significantly lower concentrations.

We also went back. We did do some classified data searches to see if we could find any additional information that would identify potential concern prior to the 1973 incident, and from our reviews we could not find anything.

DR. MAKHIJANI: Okay. My other questions was about the ChemRisk report. You know, it was a very, to some extent, a kind of the "back of the envelope" exercise that was done in the aftermath of the FBI raid and, you know, it's a necessity to put some numbers out.
there, inform the public, and so on. Were there reviews? As I recall there were reviews of the ChemRisk report afterwards, right?

Has there been some validation work in the ChemRisk report by NIOSH or that happened after 1994 when it was published?

I don't remember now. It is so long ago, and I haven't reviewed the matter, you know, recently.

MR. RUTHERFORD: You know, I don't know. I mean, that is something we would have to look at unless someone up on our team has more knowledge than I do. I don't know if validation was ever done of that ChemRisk report or not. We can look into it though.

DR. MAKHIJANI: Yes.

MR. RUTHERFORD: Because obviously no one else is jumping in.

DR. MAKHIJANI: It must have been done for the State of Colorado. So I imagine
that there was some kind of internal review or maybe the state just accepted it. I'm not sure exactly what went on there. So it might be worthwhile looking at the state's records at least and maybe some other reviews.

MR. RUTHERFORD: Okay.

DR. MAKHIJANI: And my last question about that: the ChemRisk report was looking for off-site impact. Am I right about that?

MR. RUTHERFORD: I think mainly it was, yes.

DR. MAKHIJANI: Yes, and in my experience, the stack releases and workplace concentrations aren't necessarily correlated. I mean, in fact, you could argue that in some circumstances they'd be anti-correlated, right?

Because if you're sending stuff up the stack, then it's not in the workplace, and vice versa. So if you have material that was
susceptible to dispersal and there's a lot up the stack, it could be dispersed in the workplace.

So I'm not sure that the stack releases are in any way an indication of what you might have found in the workplace. I mean, I don't find that argument very persuasive.

MR. RUTHERFORD: Well, I don't think we used that argument. In fact, I think on other occasions we say we don't use that argument that stack --

DR. MAKHIJANI: Oh, okay.

MR. RUTHERFORD: -- is indicative of exposure.

DR. MAKHIJANI: I started reading your paper, but I haven't finished. So some of these questions may be a little bit off base.

CHAIRMAN GRIFFON: Let me suggest this, just the path forward. LaVon, I'm
assuming you're keeping track of those few items that John and Joe and Arjun asked. Maybe you can follow up on those and then for our next Work Group meeting, SC&A can come prepared with a more formal review of, you know, this White Paper, actually probably both, but you know.

MR. RUTHERFORD: Definitely. I actually wrote down looking at the bubbler data that we have pre and post 1973, how they compare.

I wrote down looking at the survey data that Joe had mentioned, the 1973 baseline data to see if that provides any information and support or non-support of what we've done, and then see if there's any validation of the ChemRisk report.

I also wrote down just to ensure that we, as I had said, that we're not using the stack sample data in any manner from a dose reconstruction standpoint.
CHAIRMAN GRIFFON: Very good, and we can figure out the timing at the end of the call because if your other White Paper is almost ready, it would be great to, you know, have SC&A review all, everything, come to our face-to-face Work Group meeting and be prepared to talk about all. I guess there's five items or so here.

MR. RUTHERFORD: Six.

CHAIRMAN GRIFFON: But we can talk about the timing at the end.

So unless there's other questions --

DR. FITZGERALD: Yes, Mark. Just one last parting question since LaVon is making such a good list.

LaVon, we did have one interview, and it's SRDB 122550. That's 122550, and this individual was one of the few that were knowledgeable about the bubblers, and the reason I'm going to raise this one was he made
a point -- you may remember this -- that in terms of the containers, the bubblers only figured in the outer container, but not during the opening of the inner, and the inner container was where the bulk of the tritium contamination would have been implicated.

And I think that's an important qualifier on the use of the bubbler data.

MR. RUTHERFORD: That's a very good point. I remember that, Joe, and you're absolutely right. That is exactly what he said, and that would definitely bring into question comparing bubbler data.

DR. FITZGERALD: Yes.

MR. RUTHERFORD: So we will take that into consideration.

DR. FITZGERALD: All right. That's it, Mark.

DR. MAKHIJANI: I had one more question, Mark. Is there any indication of metal tritides from container handling and
processing?

MR. RUTHERFORD: I can answer that. We have found no indication of metal tritides.

DR. MAKHJANI: Okay.

CHAIRMAN GRIFFON: Okay. Is there any other questions from any of the Work Group Members?

MEMBER MUNN: No. This is Wanda. I don't have a question. I do have a couple of comments.

Thank you for the very good reports, all of the NIOSH team.

And one other comment with respect to the question that was raised relative to stack emissions. I thought that one of the points that was made in papers that we had was the fact that no one had ever inferred that external measurements that were made in any way suggested that there was any kind of secondary concerns with respect to personnel
monitoring, that the two were completely separate and there was never any question about the process that was made in surveying employees as being related in any way to external amounts that were evaluated in the atmosphere. At least that was my inference from what I read.

I think that was addressed beforehand, but again, thank you for the good reports, and thank you especially for identifying the difference between oxides and the elemental tritium. That was helpful to this reader.

CHAIRMAN GRIFFON: Thanks, Wanda.

Any other comments or questions? Then I'll have LaVon move on to the next Work Paper.

Again, this is just more of we're getting a presentation, and we're going to bring these back to a face-to-face Work Group meeting to more thoroughly discuss. So we'll
Hearing no more questions from the Work Group or SC&A, I'll move on to the next item. LaVon, if you want to do the next White Paper.

MR. RUTHERFORD: Sure. The next White Paper is on data falsification and potential data invalidation. The White Paper, Evaluation of Petitioner Concerns about Data Falsification and/or Data Invalidation in Rocky Flats Plant Building 123 Based on Worker Allegations.

This issue was brought up by one of the co-petitioners and was based on her review of a document, of an interview that was conducted, and it identifies potential or what could be potential issues associated with the sample analysis in Building 123.

The document is an interview conducted by the U.S. EPA and the FBI of a former Rocky Flats worker who alleged safety...
violations and manipulation of lab samples at Rocky Flats.

You can see the concern would be that if they were manipulating samples, potentially bioassay samples, personal monitoring data, it ultimately is going to affect our ability to reconstruct dose. So this is a concern we took seriously and looked at, looked at pretty closely.

So the allegations relevant to data falsification and data invalidation, Building 123, the interviewee -- and these are basically what I'm doing, is going to cite the allegations that this interviewee identified and then respond to how we feel that could potentially affect our ability to reconstruct dose.

The interviewee identified a concern with the fume hoods, that they were inadequate. He based this on he had a pH paper taped to the outside of the fume hood.
The pH paper turned bright red and which he felt was indication that the fume hoods were inadequate.

Your know, our response to that is that there could have been a chemical exposure concern. There potentially could have been some minor releases of contaminants if the fume hood was bad. But from a bioassay analysis standpoint there would be no effect to the bioassay analysis from this situation.

Another issue was that samples were left on the shelf too long and not refrigerated or preserved. Again, we looked at this. Recognize its target radionuclides of concern for the most part have long half-lives, the plutonium and such. Therefore, the shelf life would have no impact on the analysis for this.

The third concern was that fecal coliform samples were diluted to get count rate down for sampling and the dilution amount
was guesswork. Again, this has no relevance on bioassay analysis. The bioassay analysis and the bioassay program, personal bioassay program was separate from the environmental monitoring program.

Stack samples, filters were divided. If the first count was high, they would count the second half. Again, response stack sample results are not used to reconstruct dose for Rocky Flats Plant. So that has no effect.

And the last allegation made was that the improper collection of environmental water samples. Again, the environmental water samples are not used in our dose reconstruction so it has no effect on our personal monitoring results that we would have on site. Those were the allegations from the worker that we reviewed.

We also did some additional follow-up to get some outsiders' views, other
individuals' views of this. We interviewed three individuals who potentially had related knowledge or information, you know, on health physics programs, programs near that area, and to look at the issues and get their judgment on those.

We also reviewed additional documents, including another document that was provided by the petitioner, all of those for the data falsification issue, and our conclusion in the White Paper is basically that we had no indication of falsification or invalidation of the data used for dose reconstruction. And so there appears to be no effects to our ability to reconstruct the dose.

That's pretty much it on that White Paper. I'll take any questions on that.

CHAIRMAN GRIFFON: Well, LaVon, I will start off just with the one, just a question from me. In the Item No. 2, you seem
to address the shelf life, but the other part of it seems to be the handling, the appropriateness of the handling.

I mean, I've certainly run across this issue in the past, the question of a sample being stirred in the appropriate container. You know, different things can happen in a plastic or a glass container, you know, regarding the sample, depending on what the liquid that that bioassay sample might be mixed in with. You know, different reactions can take place over time.

So I think wasn't part of the allegation the question of the appropriateness, whether it should have been stored at room temperature or refrigerated or preserved appropriately, et cetera?

And how did you look into that or did you look into that?

MR. RUTHERFORD: Yes, I know we looked into that. I don't remember exactly.
I think that I might have to ask Dan or Mutty Sharfi. Actually Mutty was the one who actually did a lot of the review on that.

MR. SHARFI: Hi. This is Mutty.

Some of the things, we also talked to other labs, but people who worked bioassay labs in similar times, and from what we can tell, protocols are no different at Rocky Flats than they were at other facilities. For the most part unless you're worried about precipitation on the sides of the containers, which usually pre -- pre and analyze, you do an acid wash of the containers to make sure you capture everything.

For the type of radionuclides that Rocky was dealing with, there's really not much of a worry that the fact whether you have them at room temperature or refrigerated is really going to affect your results. Most labs if they refrigerate it, it was more for,
you know, like controls, just the urine becoming unbearable as it gets warm, you know, more than it is from an ability to process the sample itself.

So there is nothing indicating that the fact that they refrigerated it or they, you know, kept it on shelves really impacted anything.

MR. STANESCU: And this is Dan.

I will add that we tried to identify or collect, first identify and then see if we could collect, sampling procedures for Rocky Flats, but we were not successful in finding anything in the time that we had pulling this paper together or specific to bioassay procedures at Rocky. So the interview is what we have at this point to back up our information.

CHAIRMAN GRIFFON: Okay. Dan, you were reading my mind. That was my follow-up question, was do you have any procedures from
that time frame.

Did you happen to -- I mean, I don't know over the course of doing Rocky Flats if we've had any interviews with labs, you know, people you can contact otherwise to verify this. I tend to think that, you know, what Mutty said seems to be reasonable, but I just wonder if you had any other corroboration of it.

MR. STANESCU: We haven't done any other interviews on this particular part. This particular investigation was associated with environmental. We haven't found any investigations that invalidate the bioassay procedure portion at Rocky Flats.

As a matter of fact, we have indication that they had a pretty good bioassay program at Rocky, but nothing to this level that says their bioassay program was failing from the perspective of operating by the procedures or anything.
CHAIRMAN GRIFFON: Okay. I'll turn to see if there are any other questions from SC&A or the Work Group.

MEMBER MUNN: This is Wanda.

Just another comment. Perhaps I'm missing something, but I don't understand why the handling, the storage of a sample would have anything to do with the radiological assay of that sample. I can see how it would have something to do with the biological or coliform aspects of testing samples, but why would anything other than the known half-life of radiological samples be affected in any way by storage?

Is there some indicator there of which I'm unaware? It just --

CHAIRMAN GRIFFON: I think Mutty sort of addressed that. I mean, if it did, if the sample did, you know, react with the container itself, if they did the wash afterwards, after wash to get everything off
of the container, you know, there's perhaps
ways to handle it, but having no procedures,
we're not sure either.

So I wasn't even clear on what
radionuclides were necessary. I can guess
what radionuclides we're analyzing, but you
know, I was just questioning whether there
were reasons beyond the concerns over odor, et
cetera, that there were specific handling
procedures in place and why they weren't
followed.

So just questioning, Wanda. I
think perhaps Mutty's answer is probably
reasonable, but I just wanted to --

MR. SHARFI: Mark, this is Mutty.

I can add that we did interview
some people we could get a hold of from other
labs, and they said even at that time those
kind of practices were standard policies for
most labs throughout the DOE complex. So
there's no reason to believe that they
wouldn't have been anything different at Rocky than they are at other labs.

MEMBER MUNN: Thanks.

CHAIRMAN GRIFFON: Yes, thanks, thanks.

Any other questions? Again, you know, this is our first sort of cut at this. Anybody have any comments?

DR. FITZGERALD: Well, Mark, I just have a comment. This is Joe. I think this was a pretty good work-up on the FBI interview in terms of critiquing it for its implications on the occupational side, but I think what was touched upon was what the crossover implications are for the bioassay, and I don't know if you can answer that just by the FBI interview by itself.

So you know, you would need a little bit more information I would think on the occupational side to, you know, make sure
that there’s no crossover implications.  

DR. MAKHIJANI: This is Arjun.

I have a comment or a question rather. In the aftermath of the FBI raid, were there issues related to workplace safety practices and so on that, you know, were part of the proceedings or was that restricted to environmental issues only?

MR. RUTHERFORD: Well, I can only answer from what I’ve, you know, generally read. I mean, I could do some additional research, but generally what I read is most of the issues that were identified were based mainly on environmental issues. And so the findings from that would have been mainly environmental.

I’m sure there were other health and safety issues that were identified from the raid that were, you know, identified, but I don’t recall.

DR. MAKHIJANI: Because they did a
pretty open-ended search of the classified records at Rocky Flats during the raid, and I'm wondering in the work-up of those documents, you know, whether you've reviewed the work-up of those documents to see if there were workplace safety issues and, you know, issues of data integrity and so on that came up, not in terms of why they raided the client but what happened after.

MR. STANESCU: LaVon, this is Dan. If I'm remembering correctly, there's a lot of documents that are locked down in a litigation package or --

MR. RUTHERFORD: Yeah, I was going to bring that up.

MR. STANESCU: Right.

MR. RUTHERFORD: There were a number of documents that were sealed that we have not been able to get.

MR. STANESCU: Oh, okay.

DR. MAKHIJANI: That litigation is
not over yet?

MR. RUTHERFORD: No, it's over, but the documents have been sealed.

DR. MAKHIJANI: Oh, I see. Okay.

CHAIRMAN GRIFFON: Joe, I think you raised a good point. The crux of the implications is the key, and if you can think about that further, you know, when we actually convene a face-to-face, I think that would be a relevant discussion, if you have any --

MR. RUTHERFORD: I think one thing we can do, too, before is actually we can go back in preparation for convening and do some additional research and see if we can identify any changes in practices maybe through interviews or whatever in the program prior to and after and see if we come up with anything.

DR. FITZGERALD: Yes, I think there's certainly people that could be interviewed that would be very familiar with practices at that time, and I think that would
make it a little bit more confident that even though the environmental program had these flaws, they weren't necessarily characteristic of the bioassay program. I think that's what needs to be done.

MR. RUTHERFORD: Okay.

MEMBER MUNN: I thought that -- well, --

CHAIRMAN GRIFFON: I believe that would be very --

MEMBER MUNN: -- degree. It's called out pretty well, I think, in the paper as it exists, but it sounds as though this DNA was like more reassurance of what's been stated already.

DR. FITZGERALD: Well, I think everybody agrees that what's there has a strong environmental context because of the raid and the history of the raid. So this would be a little bit more assurance that there's no crossover issues.
MEMBER MUNN: Well, I don't know what one can say other than the fact that there's no connection between the two, and that even the statements that were made in legal proceedings indicated that there wasn't a connection between environmental monitoring outside the plant and worker protection, which was not called into question.

But all right. That's a question that has been made.

DR. MAKHIJANI: Mark and LaVon, I had a question. Is there any merit to pursuing whether some of the documents under lockdown can be accessed just to have an idea of what's in them and whether they might be relevant or is it not worth the effort?

MR. RUTHERFORD: I'm trying to think of a good answer. Yes, I will speak to our General Counsel and see, you know, what they can find out. That's all I can do.

DR. MAKHIJANI: Okay. Yes,
obviously it's a sensitive issue since they're still under lockdown, but it might be worthwhile to at least, you know, have some idea of whether they can be accessed and if so whether they should be accessed.

MEMBER MUNN: Historically that hasn't been an easy thing to do, Arjun.

DR. MAKHIJANI: Right, I know. I understand that, and presumably that's why they're under lockdown still.

CHAIRMAN GRIFFON: Okay. So I think a couple of follow-up items, LaVon, that you have on that.

Any other questions on that Work Paper for now? I think we've got a path forward on that to do a little more investigation.

And, Joe or Arjun, any more on that?

DR. FITZGERALD: No. I think, you know, everybody agrees. Actually, on Wanda's
point, they did -- you know, I think the FBI did say it was not as much an occupational issue, but I think a little additional information will help on that.

CHAIRMAN GRIFFON: Yes, agreed, agreed.

Okay. The last item is the update on the other three remaining items. So I'll turn it over to LaVon to give us an update, and then we can talk schedule, too, for our next, and the next one I do want to be a face-to-face meeting.

So go ahead, LaVon.

MR. RUTHERFORD: Okay. I think we all had hoped that these documents would be out sooner, but we've been back and forth on some issues and also with the sequestration, it has kind of put a damper on some things, but there are three additional papers that have issues that we're working to resolve.

Thorium strikes, thorium strikes
was identified as a concern in the previous evaluation, the first one. We went back. We did some additional research on that. We've been working this paper, and not only the thorium issue; the other radionuclides involved in this process, and this paper is close to completion. We've been back and forth with ORAU on a couple of issues.

We do expect to have this paper complete later this month and to support a Work Group meeting soon for that one.

That, as I mentioned, there's only a couple issues remaining. We're working those issues, and we do expect that to be completed later this month.

Neptunium, this paper is, again, close to completion as well. This is basically neptunium operations that occurred at the Rocky site. It was an issue that was identified during our reviews.

It wasn't really thoroughly
addressed in the previous evaluation. We recognized that. Also our interviews and our data capture, we recognized that this needed a little more review, and so we have been working that paper.

The schedule on this is kind of up in the air because there's a couple of issues out. We do hope to have this report. This report will be done no later than August, but it may be sooner depending on we're going to schedule a couple of conference calls to discuss a path forward on a couple of issues, and that may actually move that schedule up. But right now we'll say that this won't be complete in August.

The other issue is other thorium issues, and this came about in our review of classified documents and some of the interviews. We actually recognized that there were some activities that we do not believe were previously evaluated or looked at, and we
felt that we needed to do some additional research on that one.

That one is kind of the long pole in the tent. That one has had the least amount of work and would not be ready until probably September of this year.

I know that the idea is to get everything completed in time for our Board meeting in Denver in October. So we will do everything we can to pull that one or get that one completed as soon as possible.

I think the idea of a Work Group meeting or we hope to be able to support a good Work Group meeting in August, and if not, for having the other thorium issues completed September.

That's about --

CHAIRMAN GRIFFON: Okay. That was sort of my last question. Maybe we can make the dates toward the end of August for a Work Group meeting face to face.
It doesn't seem like you're \( \pi \)
well, it seems like most of it should be done
by then anyway.

MR. RUTHERFORD: That's correct.

That's correct. Most of it will be done.

The other thorium issue is the
only one I feel that could be stuck out there.

CHAIRMAN GRIFFON: Okay.

DR. FITZGERALD: LaVon, this is
Joe again.

Can you say anything more about
the other thorium issues or is that --

MR. RUTHERFORD: Well, nothing,
you know, nothing major that we've seen. If
you remember, there were foils that were made.

DR. FITZGERALD: Yes. Okay. So
this is kind of --

MR. RUTHERFORD: Yes, I don't --

DR. FITZGERALD: -- to the other
issues.

MR. RUTHERFORD: Yes, yes, yes.
And it's more along those lines. It seemed like from what we looked it, it looked like small process operations, but we needed to look at them a little further to ensure that there wasn't an exposure scenario that we hadn't previously looked at.

I can probably get into a little more detail with you next week at the Board meeting.

DR. FITZGERALD: All right.

DR. MAKHIJANI: This is Arjun.

Are you finishing at the end of August, LaVon, or the beginning of August? Because we would need some time to look at these materials.

MR. RUTHERFORD: Sure. Well, again, I can give you a better update. We're going to have some conference calls with our contractor to discuss neptunium, but I would anticipate we could have that one done in early August.
So the first two, the thorium strikes and the neptunium in early August.

CHAIRMAN GRIFFON: Yes, Arjun. That's what I heard, was July for thorium strikes, and then around August for neptunium, and if that was the case, I was thinking late August would give time for the papers to be cleared and also for you guys to be able to review them.

But we can email and set these dates in the next couple of weeks.

DR. MAKHIJANI: Yes.

CHAIRMAN GRIFFON: But, you know, I think we should try to shoot for something toward the end of August or early September.

DR. MAKHIJANI: Yeah, it seemed to me like, you know, given the time clearance and, you know, all of the sequestration issues and so on it might give SC&A a little bit more elbow room to schedule it in September.

CHAIRMAN GRIFFON: Yes.
DR. MAKHIJANI: I mean, it's Joe's call, but --

MEMBER KOTELCHUCK: This is Dave.

Is the last week in August potentially available? I mean, this is the time when many folks take vacation before Labor Day. I happen to be free during that last week, but many folks may not be. Did you want to check on that?

MR. KATZ: This is Ted.

I mean, it's sounding like from what I'm hearing here and the uncertainty about delivery, especially given clearance uncertainties, like we really should be looking early September rather than late August.

CHAIRMAN GRIFFON: All right. Yes.

MEMBER KOTELCHUCK: Yes.

CHAIRMAN GRIFFON: I'm trying to nail down an exact date, but maybe after Labor
Day would be more appropriate, and early 90
mid-September.

MEMBER KOTELCHUCK: I think that
makes sense.

MR. KATZ: All right. But if you
want, I mean, I don't know if you have your
calendars and all, but we can pencil in a date
now if you guys are ready. I mean, if we're
aiming for like the first or second week in
September, we could do that right now.

MEMBER KOTELCHUCK: Yes.

CHAIRMAN GRIFFON: Well, Ted, when
is the October meeting, anyway?

MR. KATZ: The October meeting is
the middle of October. So it's October --

MEMBER KOTELCHUCK: Seventeenth?

MR. KATZ: -- the 17th.

MEMBER KOTELCHUCK: October 17th.

MEMBER MUNN: If we met the week
of September 9th, that would be more than a
month before. So that is plenty of time.
MR. KATZ: Yes, the week of September 9th, that's wide open for me. Do you want to try to pick a date now?

MEMBER KOTELCHUCK: Why not? That week, there's for Jewish folks Yom Kippur. I don't have the exact date on that.

MEMBER MUNN: My calendar says 13th.

MEMBER KOTELCHUCK: Thirteenth?

Thank you.

MEMBER MUNN: That's a Friday.

MR. KATZ: That's a Friday.

MEMBER KOTELCHUCK: Okay. Good.

MR. KATZ: So, Mark, do you have a calendar that you want to try to pencil something in now?

CHAIRMAN GRIFFON: Yes. I mean, yes, a little difficult, but the week of the 9th, the only day that I really have is the 12th, if that works for others.

MR. KATZ: And that's fine here.
MEMBER MUNN: It's okay for me.
MEMBER KOTELCHUCK: The 12th?
MEMBER MUNN: Yes.
CHAIRMAN GRIFFON: September 12th, yes.
MEMBER KOTELCHUCK: Okay. Well, it's marginal for me, but I can do it. There's a Northeast Diesel conference that I was going to in Groton for a couple of days, but I could cancel that. If there were another day --
MR. KATZ: Well, I mean, how about the week of the 16th?
CHAIRMAN GRIFFON: That may not be good for me that week and the next week either.
MR. KATZ: Okay. Well, then it sounds like --
MEMBER KOTELCHUCK: It sounds like Thursday.
MR. KATZ: -- the better date.
MEMBER KOTELCHUCK: Yes, okay.
I'll make it Thursday. It's not an urgent thing. It's just I would have liked to go.

MR. KATZ: Right. And I'm just worried that if we don't leave as much time as possible for SC&A to be able to review what gets delivered, too, we'll find ourselves in a pinch that way.

MEMBER KOTELCHUCK: Right, right.
Okay. Well, that's fine.

CHAIRMAN GRIFFON: It will work for me.

MEMBER KOTELCHUCK: And the Yom Kippur begins --

MEMBER MUNN: I have that down on the 13th.

MEMBER KOTELCHUCK: Does it begin the evening of the 12th?

MEMBER MUNN: It says begins at sundown on the 13th.

MEMBER KOTELCHUCK: Wonderful.
Okay. Thank you. That's fine.

MEMBER MUNN: I can't speak to it personally.

MEMBER KOTELCHUCK: No, no, that's fine. That's exactly the question.

MEMBER MUNN: -- rely on the calendar, David.

MEMBER KOTELCHUCK: Yes, yes.

Okay. Thursday, the 12th, will be fine.

MR. KATZ: Okay, and just to be clear that would be a meeting in Cincinnati.

CHAIRMAN GRIFFON: Yes.

MEMBER KOTELCHUCK: Yes.

MR. KATZ: Okay.

MEMBER KOTELCHUCK: Done.

CHAIRMAN GRIFFON: That sounds good then, and that should -- all right. It sounds like that will give us time, you know, for a Board meeting, but also time for NIOSH's products to get out and be available for SC&A to review.
MR. KATZ: Right, right. And I think it's nice to have a hard deadline to help push the system to the clearance --

CHAIRMAN GRIFFON: Yes.

MR. KATZ: Very good.

CHAIRMAN GRIFFON: Okay. The last thing I would ask is are there any comments from, I think, Terrie, Don and Dan, and there may have been a few others from the public.

Any comments from the petitioner at this point? Certainly you'll have a better opportunity in the face-to-face meeting, and you will have had more time to look at these White Papers at that point, too. But --

MS. BARRIER: Right, Mark. But I will be attending the Idaho meeting next week, and Charles and I are still finalizing our comments, but we should have them ready for next week's meeting if that's okay.

CHAIRMAN GRIFFON: Oh, very good.

That's great, yes.
MS. BARRIE: Thank you.

CHAIRMAN GRIFFON: All right. And Dan, did you have anything you wanted to add at this point?

(No response.)

CHAIRMAN GRIFFON: Okay. Maybe he dropped off the call. I'm not sure.

All right. I think that's it.

This is really just an update, and we'll have more time for discussion of all these items in the face-to-face meeting in September.

DR. McKEEL: Hello?

CHAIRMAN GRIFFON: Oh, hi, Dan McKeel?

DR. McKEEL: Yes. This is Dan.

CHAIRMAN GRIFFON: Hi. Sorry. I thought we had lost you.

DR. McKEEL: Yes, I had a phone -- I don't have any particular comments to make. I was interested in the papers, the other papers on thorium, and I just wanted to
mention that I believe that Terrie Barrie has brought to your attention the serious activity once more prompted by a tip from an anonymous Rocky Flats worker that might shed some light on the shipments.

If you remember in SEC 79 on Dow Madison, there were supposed to be major shipments of thorium magnesium alloy plates to Rocky Flats. Brant Ulsh could never find any evidence of that, but apparently a worker has come forward, through Terrie, who has some documents that might be related to that.

So we're following up on that issue, and we're doing that specifically through FOIA requests to NMSA and to Department of Energy, who promise to actually do some hand searches through the classified records, which I don't believe has been done before.

So there may be some new news, breaking news on that thorium issue at Rocky
Flats, and I just was interested whether that paper number five, in particular, about other thorium issues might relate to that.

So, anyway, I appreciate your time for letting me just say a word, and that's all I have to say.

CHAIRMAN GRIFFON: Thank you.

Thank you, Dan.

LaVon, I think you got the emails I received on that, and on your other thorium issues. I think you should add that in, and we should follow up to the extent we have any more information on that.

MR. RUTHERFORD: Another thing, Mark. I'm on the agenda next week for the Board meeting to discuss Rocky Flats. Anything in particular from the Work Group meeting that you want me to add to my presentation or --

CHAIRMAN GRIFFON: No, I can talk to you off line on that, but I think, you
know, what you've covered today in a more concise fashion would be appropriate, I think.

MR. RUTHERFORD: Okay.

CHAIRMAN GRIFFON: But you do have that up there on the magnesium issue on your other thorium issues?

MR. RUTHERFORD: If it wasn't on there before, it is there now.

CHAIRMAN GRIFFON: Okay. All right. I just want to make sure of that.

Anything else before we close out from any of the Work Group Members?

MEMBER SCHOFIELD: I don't have any.

CHAIRMAN GRIFFON: All right. I appreciate everyone's time and --

MR. BISON: This is Scott Bison, and I have one comment to make.

CHAIRMAN GRIFFON: Oh, sure, sure.

MR. BISON: The view that there are documents that have been sealed and that
are not being accessed in order to do the dose
reconstruction, I think that's very
concerning, and I think every effort needs to
be made to get those documents available in
order to make sure that the conclusions that
are being drawn in the dose reconstruction
are, in fact, accurate.

They may not be related, but that
should be confirmed in my opinion

CHAIRMAN GRIFFON: Yes, thanks for
your comments, Scott.

I think NIOSH did indicate they
were going to talk to General Counsel and see
what they can do maybe at least to find out
the nature of the documents, what is sealed,
and it may be that there is no recourse, but
at least they're going to follow up on that.
So thanks for the comment.

MR. BISON: Yes.

CHAIRMAN GRIFFON: All right.

With that I think we can close out this Work
Group call, and we'll talk next week, I guess

(Whereupon, at 11:55 a.m., the Work Group meeting was adjourned.)