Centers for Disease Control
National Institute for Occupational Safety and Health
Advisory Board on Radiation and Worker Health
130th Meeting
Wednesday, August 21, 2019

The meeting convened at 9:00 a.m., Eastern Daylight Time, in the DoubleTree by Hilton Hotel Oak Ridge - Knoxville, 215 S. Illinois Avenue, Oak Ridge, TN, Ted Katz, Designated Federal Official, presiding.

Members Present:

Ted Katz, Designated Federal Official
Henry Anderson, Member*
Josie Beach, Member
Bradley P. Clawson, Member
R. William Field, Member*
David Kotelchuck, Member
James E. Lockey, Member*
David B. Richardson, Member
Genevieve S. Roessler, Member*
Phillip Schofield, Member
Loretta R. Valerio, Member
Paul L. Ziemer, Member

Registered and/or Public Comment Participants:

Adams, Nancy, NIOSH Contractor
Agee, John
Allen, David, DCAS
Barrie, Terrie
Barton, Bob, SC&A*
Blaze, D'Lanie
Brock, Denise, DCAS
Burgos, Zaida, NIOSH
Burnett, Mitchell
Buttram, Mylissa
Calhoun, Grady, DCAS
Corwin, Christine, DCAS
Crawford, Frank, DOL*
Domina, Kirk
Fitzgerald, Joe, SC&A
Frowiss, Sr., Al*
Frowiss, Jr., Al
Griego, Regina, Doe
Hicks, Stephen
Hughes, Lara, DCAS
Huotari, John
Jerison, Deborah
Kimpan, Kate, ORAU Team
Kinman, Josh, DCAS
Kitts, Thelma
Lamey, Tim
Mcfee, Matt, ORAU Team

Newlan, James
Presley, Louise
Reynolds, Mary
Rutherford, Lavon, DCAS
Sorrels, Earl*
Stiver, John, SC&A
Taulbee, Tim, DCAS
Thompson, M.D.
Tipton, John
Vance, Arthur
Vance, Regina
Vinson, Kathleen
West, Jerry
Whitten, Dianne
Ziemer, Marilyn

*Participating via telephone

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Proceedings

(9:15 a.m.)

Roll Call/Welcome

Mr. Katz: So, let's see. Yes. Everyone's in their places in the room. So, we have Board Members in the room. Alright, now.

So, welcome, everyone. This is the Advisory Board on Radiation and Worker Health. It is our 130th meeting, including our teleconferences. And we're here in Oak Ridge, and happy to be here. It feels like a home for us.

A few preliminaries for folks in the room. Materials that are being presented and discussed today are on the back table. So, have at them, including the agenda.

For people that are on the telephone line, the materials, agenda, et cetera, are all posted on the NIOSH website. This program, if you go to schedule and meetings, and then today's date, you can get all of those, the presentations and the background materials, and follow along as you would.

You also will find on the agenda that's posted there a Skype connection. So, those of you that do that kind of thing, if you want to join by Skype, you don't join the audio, but you can see the presentation slides switched as they're switched here in the room, if you want to do that.

Either way, you can just open up the presentation, which you can download there, and view it. Or you can join Skype, and watch as we flip it here.

Also note, we have a public comments session at the end of the day. It starts at 6:00 p.m. So, any of you on the line who wish to make public comment, please be ready at 6:00 p.m. to do that.

If we get done earlier with what we have just prior to that, which is the Y-12 SEC petition, we'll go right

into public comment. But we'll certainly continue on across that threshold of 6:00 p.m., to catch any of you. But don't be late for that, or you, when we're finished with our public comments we'll conclude the meeting. And you might miss that opportunity.

Let's see. So, let's, last thing, just for people on the line again, everyone should keep their phones muted except when they're addressing the group. And that mostly means just Board Members addressing the group, except for the public comment session. So, please keep your phones muted. If you don't have a mute function on your phone, just press *6. That will mute your phone and keep it that way. But press *6 again, and it will take it off of mute.

And also, for Members of the public, please do not at any point put the call on hold. Because that, generally hold lines have background music. And that will be a problem for everyone else on the line trying to hear the meeting. So, just hang up and dial back in if you need to.

Okay. And I think that takes care of preliminaries. I'm going to do roll call now. And let me just note up front, with respect to conflict of interest, with our sessions today we only have one member who has a conflict of interest for one matter, and that is for the Y-12. Dr. Lockey, who is on the line, will recuse himself. But otherwise we don't have any Board Members with conflicts. So, Roll Call. And I think we have everyone here. But we're going to just do it formally.

(Roll call.)

Mr. Katz: So, we have a full slate. Everybody's here. We have our quorum and let's get started, starting with the NIOSH Program Update. Thank you, Grady.

Participant: Hello, Ted. This is a member of the public. There's an echo.

Mr. Katz: Yes. Not coincidentally, you echoed just now. We'll try to deal with that. Thank you.

Mr. Calhoun: Is there an on button? Am I on. Okay, good. Can you hear me? Alright, everybody. As you can probably figure out, this is my first Board Meeting as the Director of DCAS. So, I'm excited to continue the good work of Stu. He left two months ago today. So --

Member Ziemer: You, you have your --

Mr. Katz: We still have the echo issue. I think, yes. I can --

Mr. Calhoun: I hear the echo too.

Mr. Katz: We need to get that sorted out. I don't know if it means just muting other mics while he's presenting. Maybe that will help. Are you ready for Grady to give it another whirl?

Mr. Calhoun: Okay. Let me turn -- How's that? Any better? No.

Participant: Is your mic on?

Mr. Katz: Yes.

NIOSH Program Update, by Mr. Grady Calhoun, NIOSH

Mr. Calhoun: Now, it's definitely getting -- Okay. I can sing a song, but I don't think you'd like that. No, no. See, someone called my bluff. That's not good.

Is it sounding okay? I still hear it a little bit. But shall I continue? Is that tolerable now, folks on the line? Excuse me? How's that? I don't hear any echos now. Okay, we good? Alright. Alright.

Well anyway, Stu and Jim Neton have left us. But I'm happy to report to you all that they're doing quite well, enjoying their time off. Stu is actually probably, (oh, mic got loud,) probably coming home from Cancun today. So, retirement is working out well for him. And who knows, we still may have access to their expertise. I think we will for future things.

So, just getting into the update. I really don't anticipate changing anything that we've been doing. It's been going too well. So, I really just look forward to continuing the good work that we've established with the Board, the contractor, and members of the public. So --

Some of the things that we've been doing that are most important to me right now are contracts and staffing. It's always really a hard thing to get it through the system. But we finally awarded a dose reconstruction contract to Oak Ridge Associated Universities Team.

As most of you know, they've had the contract for 16, 17 years. So, that's a good thing. And that just happened. It's a one year base, plus four years optional.

Also working on a worker outreach contract. Currently held by ATL. That one went out for bid. And we're working on awarding that. That is not complete yet. But that is in the works.

Also working on refilling three positions. As you know, Jim and Stu left, like I said. But we also lost one of our HPs. And so, we're working to refill those three positions. And that's in the process as well. Hopefully that will at least begin to happen in the next month or so.

Some of the workshops that we've been doing since we last met. There was an Ombudsman's outreach meeting, Fernald workers. And there was one up, that was in Cincinnati. And there was also one up in Columbus that we participated in.

There was an authorized rep meeting in Las Vegas. That was Stu's last hurrah. So, he said he was going to go to that one. So, he did. There was also a town hall meeting down here in April that we participated in.

As far as upcoming meetings go, there's a September 5th outreach meeting in Bolingbrook, Illinois.

Primarily the biggest site near that area is Argonne East, that we'll be participating in.

And we also have our Annual Dose Reconstruction Workshop in Cincinnati. And that's going to be in September. And that's usually well attended. It's a two day event. And we just provide some educational materials to people who are interested.

Case status report. This is one of the things I may change a little bit in upcoming meetings, just as far as how they're reported. But you can see this, 51,000 cases reported.

We've got 1,000 or so that are actually at our shop for dose reconstruction. About 900 of those have been administratively closed for various reasons.

We submitted 49,000 to Department of Labor, 3,500 of those pulled for SEC, and 1,600 of them pulled by DOL. That could be for various reasons, like lack of claimant, or things like that.

As far as making requests to the Department of Energy, we've got 146 requests out there. Only three of them have exceeded 60 days. So, that's pretty good.

Probability of Causation summary. We've sent about 44,000 DRs for final adjudication. About 12,000 of those are greater than 50 percent, 31,000 are less than 50 percent.

Now, there was another slide on here that we typically reported. It was the first 20,000 claims. And I deleted that one, because it's not all that relevant anymore.

What we do now is, we keep track every week of the age of the cases that we have here in dose reconstruction. And we have them broken down by how much time they've been in our shop for dose reconstruction.

And rarely does the number of cases that have been

here between nine months and over a year exceed three. So, of all the cases that we have, we're turning them around really quickly now.

And I'm going to start reporting on that for the next meeting. Because I think that's just a little bit more meaningful stat, you know.

When I looked at the 20,000 case it's like, well, they're all done. So, you know, there's really no reason to address that anymore. So, I think that might have been an artifact of the ten year review, and stuff.

So, alright. I said this one already. 1,000 cases here at NIOSH for dose reconstruction, 330 in a DR process, 207 out for the claimants to look at as the initial dose reconstruction. And then 533 we're looking at just getting prepared to do those, gathering information from the claimants and the Department of Energy.

And that may be it. Because it's not going any further. Any questions? Alright. Now I'm going to try to get to the next presentation.

Mr. Katz: Alright. And we have next DOL. And that would be Chris Crawford.

Mr. Calhoun: And I'm going to be doing the, I'm going to be changing --

Mr. Katz: While Grady's pulling it up, Chris, are you on the line?

Mr. Crawford: Yes, I'm here, Ted. Good morning.

Mr. Katz: You sound great. Thanks.

Mr. Calhoun: Let's see. I may need help, Nancy.

Mr. Crawford: Grady, your voice is breaking up a little for me. So, let me know when you're ready.

Mr. Calhoun: Okay.

(Off microphone comments)

Mr. Calhoun: Alright, Frank, I'm here.

Mr. Katz: Okay, Chris.

Mr. Calhoun: Ready to go.

DOL Program Update, by Mr. Frank (Chris) Crawford, DOL

Mr. Crawford: Great. Then I'll proceed. Thanks in advance for handling this for us, Grady. Let's proceed right to Slide 2.

Mr. Calhoun: There it is.

Mr. Crawford: This slide is compensation paid. And I'll go through it fairly quickly. But we've now paid out for the program $6.8 billion in Part B compensation, another $4.8 billion in Part E compensation, another $5.1 billion in medical bills, for a total of $16.7 billion in compensation and medical bills paid. And that was paid on the basis of 209,084 cases filed.

Let's go to Slide 3. This is the NIOSH Referral Case Status. My numbers of course will vary a little bit from DCAS, due to timing, and likely different methods I think.

At any rate, we show 51,849 cases were referred to NIOSH for dose reconstruction so far, of which 50,154 cases have been returned to DOL from NIOSH, 43,690 with dose reconstructions. And 6,464 were withdrawn without dose reconstructions for various reasons.

Currently we show 1,735 cases at NIOSH, of which 1,205 are initial referrals, and 530 are reworks, or returns. Next slide, please.

This is Part B cases with dose reconstruction and a final decision. In this category we have 300, sorry, we have 34,862 cases, with both a DR and a final decision, with final approvals of 12,046 cases, and

final denials of 22,816 cases. Next slide, please.

Here we have Part B cases filed. We show that NIOSH has handled 35 percent of them for initial referrals. And also another 12 percent of the cases were sent to NIOSH, even though they were SEC qualified. Usually that involves one or more cancers that still need a PoC calculated. That's Probability of Causation.

We also show 16 percent of SEC cases were never sent to NIOSH. We have nine percent of our cases are RECA cases. And then the other category, 28 percent, which is primarily silicosis, beryllium sensitivity, and chronic beryllium disease. Next slide, please.

Now, this chart, Part B Cases with Final Decision, also includes SEC approvals. That's why the large difference in the approvals versus denials.

Here we have 103,113 cases with a final decision under Part B, of which 54,460 were approved, and 48,653 were denied. Next slide, please.

Our top four worksites right now are Nevada Test Site, Hanford, Savannah River Site, and the Y-12 Plant. Next slide, please.

These are the SEC petition sites to be discussed today. And they vary quite a bit in size, but we'll start with the smallest, the West Valley Demonstration Project, in West Valley, New York.

We have a total of 443 claims. And we have 226 final decisions, of which we have 55 Part B approvals, and 51 Part E approvals. There's probably some overlap there. And total compensation of medical bills paid, $4.9 million to date.

Then we have Area IV, Santa Susana Field Library in California. We have 1,098 claims, no cases filed. And we have 540 final decisions, of which 263 are Part B approvals, and 250 are Part E approvals. Total compensation to date is $73.6 million.

And finally, we have the Y-12 Plant in Oak Ridge. And we have 21,242 cases filed to date. Final decisions, 9,376. Part B approvals, 5,581. Part E approvals, 6,216. And total compensation of medical bills, $2 billion. Next slide.

This is a standard slide we show every time. But it's a little bit of rehearsal that's useful perhaps. This is for outreach events. And we conduct town hall meetings, and traveling resource centers. And in the cases of small SECs, press releases are issued.

We also have quarterly medical conference calls, authorized representative workshops, and we host informational meetings regarding medical benefits provided under EEOICPA. Next slide, please.

These programs are under the control of the Joint Outreach Task Group, members of which are, of course, DEEOIC, the Department of Energy, the Department of Energy Former Worker Medical Screening Program, the National Institute for Occupational Safety and Health, Ombudsman to NIOSH for EEOICPA - Part B, Denise Brock, and Department of Labor's Office of the Ombudsman for EEOICPA, Malcolm Nelson.

And there are monthly conference calls. And they conduct town hall meetings. Next slide, please.

I have only one upcoming outreach event. And that's the town hall meeting, which Grady has already mentioned, to be held in Bolingbrook, Illinois, September 5th.

As usual, because the Fiscal Year is ending, we don't have much visibility yet to future meetings. And that's the end of the presentation. There are further slides. But they're all about eligibility requirements, and that sort of thing. Any questions?

Mr. Katz: I don't see any -- Paul.

Member Ziemer: Chris, could -- Is this on?

Mr. Crawford: Yes.

Member Ziemer: Could you just remind the Board, and maybe the general public, the nature of the reworks, or the categories of --

Mr. Crawford: Right. Reworks can occur for several reasons. A very common one is that either a new cancer develops, in which case it's added to the claim documents. And the case will be reworked if it hasn't already been adjudicated.

Also, sometimes as a result of claimant objections, and objections from the authorized representatives for the claimants, we ask NIOSH to do a rework, and answer those objections.

And other times errors are found in the file. A cancer was accepted that shouldn't have been, or there's a duplicate cancer, that sort of thing. I think those are the most common reasons for reworks.

Mr. Katz: Well, and also we rework, right, Chris, when we change NIOSH methodology for claims that were previously denied.

Mr. Crawford: I didn't quite hear that, Ted.

Mr. Katz: I'm sorry. We also do reworks when the methodology, NIOSH methodology for dose reconstruction is changed, for those claims that were denied. We rework those claims too, where they, where it might affect the eligibility, right?

Mr. Crawford: Right. Those are Program Evaluation Reports. And are done --

Mr. Katz: Right.

Mr. Crawford: -- in groups. That's quite true.

Mr. Katz: Right.

Member Ziemer: I just wanted to confirm that those were in that group. Sometimes NIOSH and Labor track things a little differently. So --

Mr. Crawford: Absolutely. Absolutely.

Mr. Katz: Do we have any questions from Board Members on the phone?

Member Anderson: No. No questions.

Mr. Katz: Okay then. Let's go on.

(Off microphone comment)

Mr. Katz: Oh, of course. David Richardson.

Member Richardson: One of the categories for a rework was when a new cancer develops. And by that you mean a new primary?

Mr. Katz: Yes.

Member Richardson: Okay.

Mr. Katz: Okay. So now we're up to DOE. And we have a surprise presenter.

(Off microphone comments)

Mr. Katz: Wait one second. I think we may have a mic issue. One second.

(Off microphone comment)

Mr. Katz: No. We would not do that ever.

Participant: It's an initiation, right?

Mr. Katz: Yes. This is called hazing, hazing, yes. Did Grady break it?

Ms. Griego: There it goes. There it goes.

Mr. Katz: Okay.

Ms. Griego: Good morning, everybody. Again --

Mr. Katz: Wait. Hold on. It's still not coming through the audio system.

Participant: You need to talk into it.

(Off microphone comments)

Mr. Katz: No. It's off. The light's off too, right. Yes.

(Off microphone comments)

Mr. Katz: Hold on one second. It's okay.

Ms. Griego: Now it's going.

Mr. Katz: Light's on.

Ms. Griego: Now it's working.

(Audio interference)

Mr. Katz: Try it now.

DOE Program Update, by Ms. Regina Griego, DOE

Ms. Griego: Can you hear me now? Okay. Third time's the charm. Anyway, good morning. I'm Regina Griego. Greg Lewis was unable to make it. So, blast from the past. Hello. It's nice to be able to see folks. It's been a reunion. I have, Kate Kimpan's here. And it's nice to see Denise.

For those that don't know me, I'm Regina Griego. I was the Office Director for EEOICPA on the DOE side of the house about ten years ago. And I was fortunate enough as well to be part of the team that actually worked on the legislation.

So, it's nice to come back ten years later and see that we've paid out $16 billion dollars in compensation. It feels good. I know Kate probably feels the same way. Because our initial estimates were like $2 billion over ten years, right.

So, it's hard to believe, you know, at this juncture that it's $16 billion. But it's very rewarding. So, it's nice to see familiar faces. But in any case, I'm going to go through the slides. I should know this by now, I would hope. But maybe I just simply forgot it

But as everybody knows, DOE's main responsibility under EEOICPA is to provide records. Grady, what did

you do?

Mr. Calhoun: Page down.

Ms. Griego: I did do page down. It's not working. Come here, look.

Mr. Calhoun: I believe you.

Ms. Griego: See?

(Off microphone comments)

Ms. Griego: You said page, you did literally mean page down. Okay. Okay. Sorry. So, as everybody knows, DOE's core mandate is to provide records to support the claimants, as well as the agencies. We support Department of Labor, NIOSH, and the Advisory Board, as well as the claimants. Page down.

We also, since I've left the organization they've developed SERT, which was nice. Because now it's an electronic records exchange information. Because that way the various agencies can provide information in a much more secure environment.

In the past it was paper based. And at times it was, it would drive us crazy. Because it would take time to submit those through the mail. In any case, it's a nice system to have.

And we also provide assistance to Labor and NIOSH on large scale records, research projects. That --

Participant: Can't hear you.

Ms. Griego: -- still continues. No? Do you want me to go, is this better? Geez, I usually, people tell me I have a loud voice.

Participant: Yes.

Ms. Griego: Okay. We also conduct research in coordination with Labor and NIOSH. We work on multiple sites. We provide records for workers.

And then, and oftentimes it takes various sources to

pull records together for individual claims. As everyone knows, the sites still have somewhat challenges in providing records.

In FY18 Department of Energy responded to 16,432 records requests from over 25 DOE locations. DOE responded in under 60 days to 16,432, about 98 percent on time response rate.

Many of the sites have a near perfect record, which is tremendous for the sites. Because I know in the past they struggled quite a bit. So, it's nice to see Savannah River and Nevada Test Site improving their timeliness.

Large scale research projects still continue. Currently, with respect to large research projects we have Los Alamos, Savannah River, Idaho, Area IV, Santa Susana, Sandia, Oak Ridge, Nevada Test Site, and Hanford.

They're still going on. It's ten years later. And still some of the same sites.

We also, as part of our, one of our functions at the Department of Energy is to provide records review. We provide, we'll review the Board's reports from a classification standpoint, as well as the records gathered for the large scale record research.

Again, we have over 300 facilities covered in the database under EEOICPA. Right at the moment we're actually working on revising the DOE website.

So, at some point you'll be able to see a better DOE facility website database. We're turning that into a more functional application for claimants to access that database.

Again, one of the other, obviously one of the other functions is outreach. We work with the Department of Labor and NIOSH, as well as the DOE Former Worker Medical Screening Programs.

As many of you might be aware, Mary Fields retired

within the last six months. So, Lokie is stepping up, and will be, is now the Program Manager for the Former Worker Medical Screening Programs.

We do have an outreach event coming up in Chicago. I think that's September the 5th. And again, as I mentioned the Former Worker Medical Screening Program now provides services to all former workers from all DOE sites, in locations close to their residence.

We've just recently published an annual report. If you haven't had a chance to review that report I suggest going to our website and looking at the data. Again, our website address. Former Worker Program brochures also on the website.

And I will answer any questions. Again, just so you're aware I have, will be probably assisting Greg Lewis quite a bit more. I've, for the last five years been working on a regulation.

I came back to Safety. I was working on Security. I came back to Safety. And I'm working directly for Pat Worthington. So, she's asked me to assist Greg Lewis on a number of research projects, facility research.

And so, you'll probably see more of me in the next few months, or the next year I would say. So, I'm happy to be back. It's nice to see familiar faces. And thank you again for all your work that you've been doing on behalf of the claimants.

Mr. Katz: Thanks, Gina. Glad to have you. Questions in the room for Gina? David.

Member Richardson: I apologize. I know this is something that's been described before. I wanted to go back to what you described as SERT, which you said had come in after you had transitioned out of the program.

But could you describe, is that a centralized service? I mean, does the information come, this is a transfer of information to DOL and NIOSH. And does that go

through a central office? Or is that coming from each of the sites through the SERT system?

Ms. Griego: It's a hub basically that DOE actually maintains. So, the sites actually upload into a folder. And then, Department of Labor and NIOSH will go into that folder and pull that data. So, it's basically maintained by Department of Energy. Does that answer your question?

Member Richardson: So, any of the different sites can load into that hub?

Ms. Griego: Correct.

Member Richardson: Okay.

Ms. Griego: Correct. Or the DOE facilities.

Member Richardson: Yes.

Ms. Griego: And those that we are responsible for.

Member Richardson: Okay.

Ms. Griego: Correct.

Member Richardson: And so, one related question. I was just trying to think about the process of how, what you described, as claimants may have worked at multiple sites.

Within a site there's multiple departments from which you're pulling records. That information's getting aggregated. And at this point 98 percent, or almost none of them appear to be reporting late, within a 60 day goal, which is impressive, and somewhat incredible. And really should be applauded.

But it seemed to me that there were two issues there. One is timeliness. And the other one is completeness. So, when you've got that many sites, and that many departments streaming information into a centralized place, and then that's getting kicked to DOL and NIOSH, is there a way of auditing whether --

I mean, is it, do we say that it's near perfect record when at least one department has returned the records? Or what's the basis for determining that it's a complete record which has been assembled?

Ms. Griego: I don't --

Member Richardson: And then we stop the clock.

Ms. Griego: I don't think, you never say it's a perfect record. I mean, it would be nice if we could say we've got 100 percent of information on every claimant. Because as you know, it's challenging, the various sites.

But I'm not familiar with the audit system that NIOSH or Labor may perform. But my understanding is that there is a good two way communication mechanism.

So, Labor will input the various sites as a claim comes in. So, if there's multiple sites the claimant worked they'll put that request into those folders.

Member Richardson: Right. I guess --

Ms. Griego: And it all comes back. So --

Member Richardson: Yes.

Ms. Griego: I can't, I mean, I, again, it's working with the individual employee, and the claimant as well, to understand whether or not there's missing records. Or maybe the advocate. And then going back to the site and asking additional questions. I know that happens all the time.

Member Richardson: Yes. Because my experience is that some electronic records, let's say the electronic external dosimetry record, you can go to a computer file, pull it out, and kick.

But verification of other types of things which might come from medical records, for example, which historically were not archived as easily to pull. And other things which would help establish the basis for employment, those can be very difficult.

And that may drag on. And if we say within 60 days we bump the external dosimetry digital file, that's not that useful to the claimant. Really what they want is the complete assembly of all the information, which would be the basis for them being able to file a successful claim.

Ms. Griego: No. And you're right. I mean, I think the goal is 60 days. But again, if they are struggling with particular claimants they will take more time.

Because some of them are a lot more challenging, particularly the ones that worked in the earlier years. So again, it's a goal. And I agree with you. It's trying --

Member Richardson: Yes.

Ms. Griego: -- to get the completeness of the record.

Member Richardson: Right.

Ms. Griego: But again, there's, it is, we're looking at 100 years worth of, now I guess records almost.

Member Richardson: Yes. Absolutely. It's just, this is --

Ms. Griego: Right.

Member Richardson: -- is where my skepticism --

Ms. Griego: Right.

Member Richardson: -- about saying a near perfect response rate within 60 days. I could imagine, you know, several functions there. One to the first piece of information entering into the SERT system.

And then, what's the time to the last piece of information? Or does that last piece of information actually ever arrive? And who's establishing what a complete record is?

Mr. Katz: Maybe I, can I get clarification? The 60 days, is that for all the agencies, or just when you're

dealing with a dose reconstruction, to get the materials from the site for the NIOSH dose reconstruction?

Ms. Griego: My understanding is it's for all the records.

Mr. Katz: Okay.

Ms. Griego: That's the --

Mr. Katz: Right.

Ms. Griego: The goal is 60 days.

Mr. Katz: Got it. Thanks.

Ms. Griego: If I'm incorrect, somebody -- Okay.

Dr. Taulbee: Is this on? You are correct. But what they're grading against, from my understanding, is the reasonable search criteria that DOE set aside for each of the sites.

So, they go through their reasonable search criteria. And they've looked in each of those areas. And they've assembled that within 60 days.

There are times when we're doing dose reconstruction where there are other records that we say, hey, there could be something else out here that we didn't receive. And we'll make another request back to the site.

So that criteria that she's presenting today I believe is just based upon that reasonable search criteria that they have for each of the sites. That they will provide that within 60 days.

Mr. Katz: Thanks, Tim.

Ms. Griego: Yes, Tim, I'm glad you mentioned that. Because the reasonable search criteria, it varies from site to site. I mean, some sites it's if you, they might have to go to 40 or 50 different systems to search records. There's microfiche. I mean, so I understand

your point.

Dr. Taulbee: Right. Yes.

Ms. Griego: I do understand your point. But again, you know, a lot of these folks have been working in this for such a long time that they do know where to go and look.

I mean, it's amazing what they can find. So, I give them credit for that. But it is a challenge. It's always been a challenge. And it will continue to be one.

Member Ziemer: So, Tim, a follow-up request then is considered basically for timing a new request. And the clock starts on that one for 60 days?

Dr. Taulbee: I believe that's correct, yes.

Member Ziemer: Thank you.

Mr. Katz: Thanks. Do we have any other questions? Questions from Board Members on the line?

Member Anderson: No. No questions.

Ms. Griego: Thank you.

Mr. Katz: Alright then. Well, thank you, Gina.

Ms. Griego: No. Thank you.

Mr. Katz: We appreciate you coming. And we'll be glad to see you again. So, thanks. And we're at a break. At 10:15 a.m. we have the Board review of 42 CFR Part 81. So, we're off until then.

Please, let's start that on time. Because following that we have an SEC, the West Valley, which we should start on time. So, on break. Thanks.

(Whereupon, the above-entitled matter went off the record at 9:57 a.m. and resumed at 10:18 a.m.)

Mr. Katz: Okay. Let me just check and see. Do I have my Board Members on the phone, back on the line?

Member Anderson: Henry Anderson.

Member Richardson: Yes.

Member Field: Bill Field.

Member Lockey: This is Jim Lockey here.

Mr. Katz: Super.

Member Roessler: Gen Roessler.

Mr. Katz: Bill, Andy?

Member Field: Bill Field.

Mr. Katz: Schofield.

Member Lockey: Jim Lockey.

Member Roessler: Gen Roessler.

Mr. Katz: That's all of you. Thank you. Thank you very much. And you're all very clear. Paul is not at his seat for the moment. But he'll be back shortly. And I think we can get started.

We have Dave Allen. And he's going to be presenting on the revision to 42 CFR Part 81, which is our Probability of Causation Rule, which had to be amended technically. And Dave will tell you all about it.

Mr. Allen: Thanks, Ted. As Ted said, my name is Dave Allen. I've been with DCAS pretty much from the start. I'm here to discuss --

(Audio interference)

Mr. Allen: Can you hear me?

(Audio interference)

Board Review of 42 CFR pt 81 Amendment to update ICD-9 to ICD-10 codes, by Mr. David Allen, NIOSH

Mr. Allen: How about now? Can you hear me? Okay. We'll try this again. I'm here to discuss, we are

making a revision to Title 42, Part 81 of the Code of Federal Regulations, or 42 CFR 81.

We more commonly refer to that as our Probability of Causation Rule. The reason for the change is primarily to convert from ICD-9 to ICD-10 coding system. And I'll explain what that means here in a moment.

There is also a couple other cleanup revisions, I would say, to fix a couple of things that, essentially typos, or things, you know, artifacts that should have been cleaned up last time it was revised. And now they are.

As far as ICD, it stands for the International Classification of Disease. And it is a coding system put out by the World Health Organization, that classifies, or codifies each disease, not just cancers. Cancers are a portion of that. So, you can imagine, this is a very large coding system.

ICD-9, which is what we are currently using, stands for the ninth revision to that system. The World Health Organization put out a tenth revision. So, it is referred to as ICD-10. That's what we are trying to switch over to.

In the United States we don't actually use the ICD-9 and ICD-10 systems. We actually use the CM version of it, which stands for Clinical Modification.

These are, this is a version that is put out by a joint effort of the National Center for Health Statistics, and the Centers for Medicare & Medicaid Services. It closely follows ICD-9 and ICD-10. But it allows these organizations to update them more frequently than the World Health Organization would. The ICD-10 CM version, the first one, because effective October 1st, 2015. And then, those organizations tend to put out a new CM version effective every October 1st, every year.

Sometimes there is no changes to any codes for cancers. But sometimes there's some minor changes.

Occasionally they will add a cancer. Or it looks like they'll add a cancer. Often it's one that is split into two different coding systems. And they specify two different codes for what used to be one cancer.

When they do that, or when they make any change actually, those two agencies and their Coordinating Committee put out what they call a crosswalk that describes the new code, and lists the previous code that was applicable to that cancer.

So, the question is, why do we care? In our program the claimants give the Department of Labor medical information to describe their cancer. Part of the Department of Labor's job is to verify those cancers. But also to classify those cancers.

And by classifying I mean they assign an ICD-9 code, or now an ICD-10 code to those cancers. We take those ICD-10 codes, the classification of those cancers, and we have our predetermined tool that will tell us what internal organ, and external organ, and cancer model we need to use for that cancer.

We designated all that in a document we call OTIB-5. And it essentially, the current version of OTIB-5 lists every ICD-9 code that is considered a cancer. And it lists an internal organ, an external organ, and the cancer model for that code.

And that document is being revised. And it essentially has been through a review cycle. It just has not been signed off yet. That does the same thing with ICD-10 codes.

As far as the cancer models, the original list in OTIB-5 came from the IREP technical documentation for NIOSH IREP. IREP stands for Interactive Radio Epidemiological Program. But essentially it is a computer program that we use to determine Probability of Causation.

When the, in our revision when the C inversion is updated, agencies that update that put out a crosswalk that lists the previous, lists the new code

as well as the code that cancer would have previously been classified as. So, when this happens we will simply use the cancer model from that previous code for the new code, if that makes any sense.

Now, they did the same type of thing, but at a much wider scale, with the ICD-10 versus ICD-9. They didn't want to call it a crosswalk, because, you know, now you got one type of crosswalk for revision, and another type of crosswalk for the World Health Organization Revision. So, they called this a General Equivalency Mapping, or a GEM.

What this GEM does is, it takes every ICD-9 code and lists, every ICD-9 code, and lists an ICD-10 code that is equivalent. It also goes the other way, and lists every ICD-10 code, and gives an ICD-9 equivalent code for it.

Most important in this GEM is, it also has a flag, where it indicates whether that match is an exact match, or an approximate match. And approximately two-thirds of the codes were approximate matches, instead of exact matches, which made the job really tough, of translating these over.

I mentioned in here that Department of Labor has already been using the ICD-10 coding system. They've been using it for some time now. They've been using the GEM to also provide us with an ICD-9 code. That way, we're still using the ICD-9 code.

They're essentially providing both for now. And we'll stop soon, because the organizations that put out the CM version have said the GEM that was effective October 1st, 2018 will be the last GEM they put out.

After that they're considering everything as ICD-10. And ICD-9 won't be supported anymore. That is why we are, that's why we have to go ahead and change over to this ICD-10 system.

So, what we have done is put together -- It took a little effort to look through all these codes. It is quite a few. I think with the ICD-10, I think we listed some

1,300 codes.

We put together a RPRT-0098. And that describes our decision logic on what we considered a cancer code, and what the equivalent ICD-9 code was, so that we could then use our current organs and models for that ICD-9 code for the new ICD-10 code.

The logic end of that decision logic concentrated on those codes that were flagged as approximate. But like I said, that was quite a few of those. Anything that was flagged as an exact match, we just simply picked it up. It was indeed an exact match. But there was a lot that were flagged as approximates.

As it turned out, many of those approximates were very easy for us to deal with. I have an example up here on the screen. Most of them were simply the fact that the ICD-10 coding system just tends to be more specific than ICD-9 was.

The example I have up on the screen is cancer of the lower lobe of the lung. Under the ICD-9 system that was classified as a 162.5. But under the ICD-10 system it's actually three separate codes.

One for the lower lobe of the left lung, one for the lower lobe of the right lung, and one for the lower lobe of the unspecified lung, which essentially means, don't know which lung it was.

That's obviously not going to be for a current patient. But for medical records in some study afterwards. That will have almost no effect for us. We're going to estimate the dose as a lung dose.

But it may have some effect for medical purposes, for research purposes. But for our dose reconstruction purposes we have a calculated lung dose. And that would be the dose we would assign. And we have a lung cancer model. And that would be the cancer model we use.

So, that, excuse me, that type of thing allowed us to eliminate the vast majority of those approximate

codes, and got us down to a few hundred that we had to look at a little closer.

And I wanted to point out, one more thing was that when we were reviewing those approximate codes, like I said, it is, they may have some useful purpose, and probably do have some useful purpose for medicine, which is what these codes were designed for. And also medical research, epidemiological research, which is part of why these codes were designed.

But for what we use them for, we only have so many internal organs that we can calculate a dose for. We only have so many external organs that we have conversion factors, so we can calculate a dose. And we only have so many cancer models.

And so, everything that we do has to fall into one of those categories as a surrogate. Often in a favorable manner if necessary. But we will put every cancer into one of those categories.

And with that limitation we don't need the type of detail that we're getting with the ICD-10 system. So, you know, out of 1,300 codes we've got 30 some internal organs.

So, obviously a lot of repeat with all those. I think about that number of 20 some cancer models. I'm not sure. I don't have that exact number.

So, for our purposes, if the GEM, or crosswalk, or if we have multiple codings, new codes for one old code, if they were all using the same organs and the same models, we considered that a good match. And we just picked one of those codes and moved on.

The other important piece of information here is in the IREP technical documentation. There was a list created for likely primaries, for every secondary cancer.

And the way that was created was, epidemiologists going through a large amount of cancer claims that

had primaries and secondary cancers.

And for every secondary they determined, they listed the primaries that that person had, and they came up with a list that would account for 75 percent of, I'm trying to figure out how to explain this. For every secondary they came up with a list of primaries that would account for 75 percent of those. So, we had this list of likely primary cancers. It was listed in the IREP technical documentation. And it was included in the original Code of Federal Regulations for 42 CFR 81. That list was listed by ICD-9 code. Consequently, we had to convert that list into ICD-10 codes.

Once we had our approximation codes all sorted out, we got everything figured as far as what ICD-9 code would be what ICD-10 codes, we simply then were able to convert that list over.

It's not a one to one type of thing. Because under, for example, under ICD-9 lung cancer was a 162. Under ICD-10 it's a C-33 and a C-34, depending on what part of the lung. So, there is not a one to one comparison on the number of likely cancers.

We, this was also, that secondary listing was also included in RPRT-0098. Towards the end of that report we did that conversion. We made a list of likely primaries. And then, at that point we were able to consolidate it. Because you would have, such as C-33 and C-34, both using the same organs, the same cancer models. And we were able to collapse some of those numbers into what was necessary to perform dose reconstruction for these claims.

So, the RPRT-0098 has a, RPRT-0098 and 42 CFR 81 have a complete list for the likely primaries. And then, our procedures will be using a collapsed list, to where essentially there are, when you look at the organs and the cancer models, some of those codes are duplicates, is what it amounts to. And we eliminated some of those duplicates to get it down to a more manageable size.

I think that is all I had for you. I'm willing to entertain

some questions on this. I know I've listed through it kind of quick there. But --

Mr. Katz: Paul.

Mr. Allen: Okay, Paul.

Member Ziemer: Dave, it sounds like you're good to go. Are we already doing this? Or are we waiting for the go ahead from the Board, which is on the agenda here? In other words, is IREP and everything set to do this? Or is there going to be a time, a turnover time, or what's going to happen?

Mr. Allen: IREP just has cancer models in it, and we're using, obviously, the same cancer models. Our main change was for OTIB-5, where we listed the ICD-10 codes, and which organs and which models to use. Also, there's a similar type of thing in OTIB-6 for medical x-rays.

We have our codified, our interim final rule, out there. There is a 60 day public comment period. Department of Labor is ready to go. We just have to finalize OTIB-5, OTIB-6, and we can pretty much turn it on any time. But we did --

Member Ziemer: Okay. That's sort of what I'm asking. Is it like an instant turn on? Or is it going to take a period of time to move into it? Or is there --

Mr. Allen: No. It --

Member Ziemer: -- coding or --

Mr. Allen: It will not be a transition. It will be a turn switch.

Member Ziemer: Okay. Good. Okay, thank you.

(Off microphone comment)

Mr. Katz: Yes, go ahead.

Member Richardson: I'm sorry. Just a follow-up. So, since 2015 or so there have been codings to ICD-10.

What have you, what's been happening? Right now you've been receiving ICD-9 codes that were crosswalked essentially by DOL. And this rule is just a language change?

Mr. Allen: The rule actually has that secondary cancer list in it by ICD-9 code. So, it's a change to change those numbers over to ICD-10 numbers. And there's a few pieces of the text that mention, like the Code 162 in the text that now will say C-33 and C-34, for example. But --

Member Richardson: I guess the question is, something has been happening along these lines for years?

Mr. Allen: We have been using the ICD-9 since the beginning of the program. We're today still using ICD-9 codes.

Member Richardson: But the question is, where did you receive those ICD-9 codes? Because they, the information was not coded to ICD-9.

Mr. Allen: We get, well, it was. Some of it was originally. I mean, it's the Department of Labor Claims Examiners that classify the cancers. They had their medical experts they can rely on for unusual situations if they need help.

And they have started using the ICD-10 system, and then crosswalking it from the CM version that jumps back to an ICD-9, and giving us both versions for new cancers, new claims that they give us. They've been giving us both ICD-9 and ICD-10 classifications.

Member Richardson: Okay.

Mr. Katz: Yes. So, just to be clear, it's, they've been operating, like you're suggesting, they've been operating in this world for two years, just the GEM system that's been doing this transition, this translation I should say.

Member Ziemer: But can you clarify? Does that affect

the input of IREP at all, from what you were doing before?

Mr. Allen: No. Not really. I mean, the assumption is the coding is correct. No, it doesn't.

Mr. Katz: Josie.

Member Beach: Yes. I was just wondering. Do the new codes address any of the organs that were missed in the I-9 codes? I know there was some primary organs that sometimes you had to kind of guess which one they went to. Does that correct that?

Mr. Allen: I'm not sure I'm following the question, Josie. I'm sorry. There is, like I said, there was only so many internal and external organs that we have a means of estimating the dose for. And so, in OTIB-5 we used surrogate internal organs for some organs that don't have a specific internal model under the ICRP system. Is that what you're --

Member Beach: Yes. That is what I was referring to.

Mr. Allen: Okay.

Member Beach: I was just curious if it corrected any of those, or captured any of those new organs.

Mr. Allen: No. The smallest of organs that we use for estimating dose comes from the ICRP, or the International Commission on Radiological Protection. That hasn't changed. This is all the World Health Organization classifying a particular cancer.

Member Beach: Okay. Thanks.

Mr. Katz: David, do you have another question? Or, oh, Phil, go ahead.

Member Schofield: Yes. I've got a question. First, concerning the factors. And that's that some of the more rural areas and stuff, they may not be able to, there's a, already there's confusion converting from the 9 to the 10 codes among some of the doctors.

But some of the doctors in more rural areas, or smaller facilities, they're, when you mentioned just the three codes just now for right lung, left lung, or unspecified, that they may not actually put in something that is the correct 10 code. But more as a generalized item. How's that going to affect things?

Mr. Allen: Believe it or not, very little. There is, DOL classifies the cancers. And they rely on the information they get. In some cases they will get an ICD-9, ICD-10 code.

But you've got to remember, many of these cancers were from back in the '60s, back in the '70s. There was no ICD-9 or ICD-10 code. They've been, for years, since the beginning of this program they've been taking the medical records, seeing what that cancer is, and then determining what the ICD-9 code, and now determining what the ICD-10 code is for that particular cancer. So, if the doctors have coded it, they will use that as a tremendous help, and maybe be able to pick it up. But they'll, they don't actually have to have that.

Mr. Katz: And I'll just add to it, Dave, saying where there is diagnostic issues, I mean, that would be dealt with between DOL and the claimant anyway. So, that would be resolved before it ever got to NIOSH for dose reconstructions. Yes. David.

Member Richardson: Thank you for this. And I'm largely following what's happening. But there's two things that happen with a conversion from one revision of the ICD to the next.

And one part of it is, the institution of new sets of numbers, and typically an expansion of the list of numbers or characters that classify the disease. So, that's a coding issue. And that can be dealt with through a crosswalk between what numbers are equivalent to what other numbers.

But there's a rule change that happens between revisions of ICDs as well. And that's a decision tree logic about how to select which cancer is going to be

the primary, for example, and which is the secondary. And you got into some of that through this now recoding of the secondaries. But that's actually recoding of the secondaries according to the logic of ICD-9.

ICD-10 has a different logic about secondaries than ICD, ICD-10 has a different logic than ICD-9. Changes and assumptions about which, when you only know the secondary, which is the primary.But that also affects the coding. For example, if you've got a death certificate, and it was coded by a clinician in the 1970s, or 1980s under ICD-7 or ICD-8, that, there was a logic for choosing which cancer was primary and which was secondary, based on the ordering of the causes of death.

And under ICD-10 that's completely changed. Now you don't follow that logic anymore. You code them as multiple primaries unspecified organ system, for example. And that's not something which you can bridge code. This is why there's a profession called nosologists, who have to understand the rules for choosing the ordering, based on the information listed on a death certificate.

And recognizing that over time the basis for interpretation of what a doctor in a rural area would have written on the first line of the death certificate, and the second line. And that there had to be a, they had to follow a set of rules to fill that information out. And those rules are changing because of our thinking about people dying with multiple pathologies simultaneously.

And that makes, this is partly where it gets difficult. It's the crosswalk, particularly when you're working with death certificate information, is a difficult thing. And I just, I mean, all of that's just an observation. I don't know that it's going to be fixed.

And I don't believe, I've asked Department of Labor before, do they have nosologists involved as claims examiners? That's never been clear to me.

But the other and last issue, which I guess I'd like to get to is, I believe you have death certificates, as you said, coming in that are coded to ICD-9. What I'm just, what I understood from the presentation is that those were getting, now the information you're going to get, is that information translated into ICD-10, sent back to NIOSH as ICD-10, and ICD, and NIOSH is going to take the ICD-10 and transform it back into an equivalent ICD-9 code?

At that point it's as though you're playing telephone. And there's a coarsening of information. Because originally at least some of these deaths, or cases diagnosed, I'll say in four years prior were coded originally to ICD-9. And they're going to be crosswalked forward, and then coarsened and crosswalked backwards again if DOL is only going to send everything as ICD-10.

Mr. Allen: Well, to answer your first concern there, the lucky part is even though that may have changed, it doesn't matter to our program.

When you're talking about the primary and secondary on a death certificate you're talking about the primary cause of death, secondary cause of death. When we're talking primaries and secondaries we're talking about a primary cancer versus a metastatic cancer.

Member Richardson: I believe it does matter. So, you have a disease model and I think a dose model. For example, for the stomach and for the gall bladder there's a risk model I think in IREP for each of those.

Mr. Allen: Yes.

Member Richardson: If those were listed as Part 1, on Part 1 as one disease and a second disease, in ICD-9 you would have chosen the bottom one as the primary. It would have been, this arised because of this. And so --

Mr. Allen: Not for our program, no.

Member Richardson: It's going to matter what information you're getting. I mean, the code, the ICD-9 code would have been a single code. The ICD-10 is going to collapse those as multiple diseases of the same broadly digestive system, which is a different risk model again in IREP. Digestive disease is unspecified. So, knowing, I don't, we, I mean, we can look at this. But --

Mr. Allen: We can look at this. But in our program we can have multiple cancers. We have had up to 200 primary cancers --

Member Richardson: Right.

Mr. Allen: -- of skin cancers.

Member Richardson: But it's the rule of how, it's the logic of how there's a determination, given a death certificate, about what is the primary. That's what I'm getting at. Their, ICD-10 allows --

Mr. Allen: That's what I mean.

Member Richardson: -- there to be multiple primaries.

Mr. Allen: They're not the primary. It's multiple primaries in many cases.

Member Richardson: Right.

Mr. Allen: It's not the primary, like you would see on a death certificate.

Member Richardson: Yes. Well, this --

Mr. Allen: We --

Member Richardson: This is the question when we're working with claimants who present in the evidence establishing their diseases as the death certificate.

Mr. Allen: Yes. And they have presented that. And you get a primary cause of death. You get another cancer as the secondary cause of death. And they're

both classified as primary cancers in our system. And then we do two multiple primary cancers. That you might get one that's metastatic somewhere else, that is a secondary cancer from one of those original primaries, and we don't get that.

Member Richardson: Yes.

Mr. Allen: Or we get a secondary cancer with no known primary. And that's the table in the Code of Federal Regulations I was talking about, how we deal with those.

But as far as the order on the death certificate, no, it really has no effect on our program. They're classified as either a primary cancer or a metastatic cancer, which we often refer to as secondary.

Member Richardson: That's right. And how you make that determination is important.

Mr. Allen: Yes. I cannot think of a single time I've seen DOL make that determination by which line it is on a death certificate. In fact, I've seen very few death certificates actually that had an ICD-9 code on them, honestly.

Member Richardson: Well, this is a major issue in the coding of them. For example, is a lung cancer or brain cancer a secondary? Is it a metastatic cancer from a different primary or not? And when all, the only information you have is, this arose because of this, I believe the determination would typically be that it was a secondary. But you can say --

Mr. Allen: Normally --

Member Richardson: -- that's not what's being one.

Mr. Allen: I mean, most cases, I guess, in pathology or a doctor's thing is usually not just a death certificate. And honestly, when they have very little, from what I've seen.

And this is not us. This is Department of Labor that classify these. But from what I've seen, if it just lists

two cancers, they're going to list them as two primaries.

Member Richardson: Oh, and I, absolutely I agree with you. It's Department of Labor. And it's the question about whether that information is going to continue to be captured or not, based on crosswalking back and forth across decision rule logics, as well as coding logics.

Mr. Allen: Yes. I can't ever remember a case where I saw two cancers classified on a death certificate, and they did not give us two primaries, with the exception of them saying metastatic cancer.

Mr. Katz: Do we have any questions from Board Members on the line?

Member Lockey: Jim Lockey. David, I just have one question.

Mr. Katz: Jim, wait. Hold on until we get your audio right. Because we're having a hard time hearing you. Why don't you try again, Jim. Jim?

Member Lockey: Can you hear me, Ted?

Mr. Katz: No. You're super faint. Hold on. I don't know. This is like, we had this problem before we started the meeting. Hold on. Jim, okay. Try, keep talking. Because we can't know without hearing you.

Member Lockey: Alright. David, can you hear me now?

Mr. Katz: Okay. We can hear you.

Member Lockey: Okay. Just one question. Is there a mechanism set up to resolve potential conflicts in this transition between ICD-9 and ICD-10, if something comes up? How is that handled, if the decision tree is not able to arrive at a decision, or it can't arrive at a conclusion?

Mr. Allen: If I heard and understand that quite right, I'm not sure. But if I got that right, I wouldn't say

there's a process in place. What we have is our crosswalk there and our, you know, our listing of ICD-10 codes. And everything in NOCTS now has been transitioned over to an ICD-10 code. DOL provides everything in ICD-10 codes that they provide us now. And, I mean, we don't, we're not going to be transitioning them back to nines. They're going to stay as tens. And we are, OTIB-5 is going to stay as ten.

If there is a question on a particular claim, as far as whether that is coded correctly, that's something that happens now. We will routinely, I wouldn't say routinely, but from time to time we have a questionable code, we will go back to the Department of Labor and ask them to reconsider, or to verify that this is what they intended for that particular claim. And they're usually pretty fast, and pretty open, saying, no, that's wrong, sorry. Or they would say, yes, that's the correct thing.

So, it's, I think what you're asking is done on a case by case basis, when we see something that we don't think is correct, if I got your question right.

Member Lockey: You did get my question right. How often does that occur? Can you tell me that?

Mr. Allen: Not with any certainty, I couldn't, no. Gosh, I don't even have a good guess. It's not unusual for us to ask them to double check something. But, I mean, it's not something annually. I want to say once a week maybe. But I wouldn't even guarantee that's right.

Member Lockey: Okay. Thank you.

Mr. Katz: Other questions on the line?

Member Roessler: Ted, this is Gen.

Member Field: Go ahead, Gen.

Member Roessler: Okay. Can you hear me?

Mr. Katz: Yes, Gen, we can hear you.

Member Roessler: Okay. First of all thanks for, is Dave speaking from the mic in the room?

Mr. Katz: He is.

Member Roessler: And that was very good. Our earlier presentations were hard to hear. But you fixed something there. And I appreciate that. There's a lot of clicking in the background. But we can hear.

My comment, it's not a question, but my comment is that when I first got the DCAS ORAU report I was quite overwhelmed. I was impressed with its detail. But really didn't understand what was going on.

So, I appreciate the presentation today, and the comments and questions. It makes it a lot clearer. And it seems to me that we ought to move forward, and get things as up to date as possible.

Mr. Katz: Thanks, Gen. Yes. I think the presentation was very good. Other questions?

Member Field: Ted, this is Bill.

Mr. Katz: Yes, go ahead.

Member Field: I had a question about, if someone could just clarify what's being done for chronic lymphocytic leukemia?

Mr. Katz: I can clarify that. Nothing is being done, per se.

Member Field: Okay.

Mr. Katz: If you mean, there were corrections made. Because, as you will recall, the Board commented on rulemaking we did a few years ago, to add CLL. And when we did that --

Member Field: Right.

Mr. Katz: -- there were just some artifacts that were left in the rule, relating to when the rule had excluded CLL. So, these are just cleaned up in the rule. But

there's really no substance to it. It's just cleaning up an old mess that was left in there. Is that what you're --

Member Field: But in --

Mr. Katz: -- addressing?

Member Field: -- ICD 10 it's treated differently, isn't it?

Mr. Katz: Oh, I'm sorry. So, that's a --

Mr. Allen: And I don't have it off the top of my head. But I believe there is, in fact, I know there is still a code for chronic lymphocytic leukemia.

Member Field: I think it's a bit more complicated now. And have they ever decided on what the target organ was for CLL?

Mr. Allen: We ended up with a model for, a dosimetry model for CLL that ended up being a weighted average of a lot of different organs. I think --

Member Field: Okay.

Mr. Allen: -- Jim Neton presented that to the Board. And it --

Mr. Katz: He did.

Member Field: Right.

Mr. Allen: Yes.

Mr. Katz: He did. And the Board approved that back --

Member Field: Right.

Mr. Katz: -- when we did that rulemaking.

Member Field: And I would expect that the CLL in ICD-10, I think it's substantially different. I may be wrong. But I also agree with what David's been talking about as well. It would be nice to know what

this decision tree is, and if there are trained nosologists with the Department of Labor.

Mr. Katz: Okay. Other questions from Board Members on the line? Or in the room? Brad, did you have a question?

Member Clawson: I was just wondering how this is going to affect when we do our blind reviews of this. Is this, were these codes used? Or do we review that? Or is that just --

Mr. Katz: No. I mean, the blind reviews don't get into any of these issues of diagnoses.

Member Clawson: Okay.

Mr. Katz: So, I mean --

Mr. Allen: SC&A has access to OTIB-5. And I think they have used that in the past. Based on the code they'll use the particular organs and models. And it's simply a revision to OTIB-5. We'll now have the ICD-10 code instead of ICD-9 code. And then list the organs and models. So, it should be very seamless for them.

Mr. Katz: Right. So, SC&A will be doing it the same was as DCAS will be doing it.

Member Clawson: But I just remember that we were using the OTIBs. And they were talking about changing that. And I just want to make sure that we keep the tools up to date. So, okay.

Mr. Katz: Yes. Good point. Other questions? If we don't have other questions, just explain this rulemaking. It's already, it will be effective, regardless of whether the Board acts. But we are in the public comment period for the rule. And we do need, by law we need the Board to comment on rulemaking affecting any of the three rules that NIOSH administers for this program. So, if we have a motion for the table. Paul?

Member Ziemer: Is my mic on? Yes. I will make a

motion that could be inserted into the letter that you provided for us. My motion is simple. I move that the Advisory Board on Radiation and Worker Health has reviewed the rulemaking on 42 CFR 81, and concurs with its content. That would be inserted into the letter that you proposed, Ted.

Mr. Katz: Right. And I'll read the letter once we get to that point. But do we have a, we need a second for that motion.

Member Valerio: Second.

Mr. Katz: Loretta seconds it. And now, do we have any discussion of that motion? Or from people on the line? Yes? David.

Member Kotelchuck: I feel like I can, Dave Kotelchuck. It seems to me that issues were raised here today, particularly by Dr. Richardson, that --

Mr. Katz: Can't hear you. You need to get closer maybe.

Member Kotelchuck: Sorry. Do I need to push the button? I think it's on. Can you hear me?

Mr. Katz: Yes. You're closer.

Member Kotelchuck: I think issues were raised today that are not certainly resolved in my mind. And I think Dr. Richardson had made some very important points. I don't feel comfortable concurring if, when there are outstanding issues. I understand that whether we approve or not this will be in effect. I don't, certainly don't disapprove. But I don't feel like I really concur.

There are, to my mind, outstanding issues. How to deal with them, I don't know. I mean, it was not raised here. And there are even other questions of a broader nature that one might do. So, I don't see, I would rather leave it as we have reviewed it.

I'm not making a motion. But my sense is that to say that we have reviewed it, and understand it, and

leave it at that. That is to say, I don't feel comfortable with concurrence.

Member Ziemer: May I respond?

Member Kotelchuck: I don't know what other --

Member Ziemer: Dave, I understand your concern there. The intent of the motion from my perspective is to help us implement simply moving to the new system from the old. There's implementation issues, some of which are handled, that Dave has described. How do you implement that, in terms of what we do in practice? And some of that falls on Department of Labor, I think, and not on us.

The idea of my motion, and perhaps you can help me get some better words, is simply to say that, yes, we're aware of the need to move on to the 10.0 from 9.0 --

Member Kotelchuck: Right.

Member Ziemer: -- or whatever it is. And that we concur that that should be done.

Member Kotelchuck: I feel comfortable with that. That's, the spirit of that.

Mr. Allen: Dave Allen. I just wanted to point out that there's, in that conversation there is nothing in this Code of Federal Regulations that describes how you would go about classifying a particular cancer, other than using ICD-10.

That is, as Paul pointed out, is a function of Department of Labor. But this rule, you could still say this rule is okay. But there's another topic off to the side about how they take those medical records, and come up with the proper coding for it. But that's not discussed in a rule. It's not part of it.

Member Kotelchuck: Yes. Thank you.

Mr. Katz: Other comments, discussion. Josie?

Member Beach: Well, I think it's true. This is going to be up for public comment also, beyond the Board.

Mr. Katz: Absolutely.

Member Beach: So, if somebody has more specific questions they can go that avenue too, right?

Mr. Katz: Yes. NIOSH, once it gets whatever public comments we get, and the rule is still open for public comment, it will have to respond to all of those in the rulemaking to finalize this all.

So, it's effective. But it could be amended if we get public comments that suggest something that's necessary, or an improvement.

Any other discussion, including my Board Members on the line? Okay. So, we have a motion. It's been seconded. We've had our discussion. And I think it's time then to do a roll call vote.

(Roll call vote)

Mr. Katz: And all are in favor. And the motion passes. Thank you very much for getting this important work done.

And if we do receive public comments that are substantive, I think we'll have another session to discuss those with the Board. So, you can be apprised of what's come in, and whatever concerns you might have about whatever comes in that might be substantive. Who knows? Okay.

So, very good. And now, let's see. We're pretty much on time for West Valley. This is West Valley SEC. It's a new petition ER. It's an 83.14. And we have Christine Corwin to present for us. Thank you.

West Valley Demonstration Project SEC Petition #252, by Ms. Christine Corwin

Ms. Corwin: Hopefully that works. Good morning. My name is Christine Corwin. And I am a health physicist with NIOSH. And I'm here to present information

about the West Valley Demonstration Project, SEC 252.

I would like to begin with some information about the West Valley site itself. The West Valley Demonstration Project is located in West Valley, New York, which is around 35 miles south of Buffalo, New York.

The site was originally purchased by the State of New York in 1959, and was leased from the state in 1962 by Nuclear Fuel Services, Incorporated, more commonly known as NFS.

The site operated as a private spent nuclear fuel reprocessing center, using the Plutonium Uranium Extraction, or PUREX process.

The AWE covered period is from 1966 through 1973. The residual radiation period is from January 1st, 1974 through February 25th, 1982. And there is a DOE covered period from February 26th, 1982 through the present.

The West Valley Demonstration Project Site Profile was completed on August 17th, 2007. SC&A completed a review of the Site Profile on December 5th, 2013, and found that the adequacy and accuracy of internal dose records was not fully addressed.

Specifically, they questioned whether the exposure records requested from NFS headquarters, as well as the records in the individuals' personnel folder were accurate and complete. In response, a review of claimant files was performed, as well as additional data capture efforts and research.

It was determined that for the claims with internal monitoring data, the vast majority of monitoring information was obtained from data capture efforts performed by ORAU and NIOSH, as opposed to being obtained from NFS directly. Additionally, it was determined that there was not sufficient workplace monitoring data available to estimate internal exposures. Therefore, NIOSH initiated an 83.14 SEC

petition for the AWE covered period, 1966 through 1973, due to the lack of adequate and accurate internal dose records, as well as workplace monitoring data with which to estimate dose.

Because the SEC petition was based on NIOSH determining that internal radiation doses could not be estimated, the feasibility of external dose estimations were not evaluated.

The proposed Class for SEC-00252 is all Atomic Weapons Employees who worked at the West Valley Demonstration Project in West Valley, New York during the AWE operational period from January 1st, 1969 through December 31st, 1973.

The basis for the proposed Class was due to insufficient personal and workplace monitoring data to reconstruct dose. NIOSH is continuing to evaluate the years 1966 through 1968. There are significantly more internal dosimetry data available to assess intakes for those years. So, NIOSH is continuing to evaluate the quality and sufficiency of this data.

There are 150 total claims submitted for dose reconstruction for the site. There are 35 claims for energy employees who worked during the period under evaluation. Thirty-three of those claims have been completed. Twenty-four of the claims had internal dosimetry records that were obtained from either NFS or through data capture. Thirty-three claims had external dosimetry records.

Mr. Katz: Do we have a problem with -- One second.

(Off microphone comments)

Mr. Katz: Okay, wait. Hold on then. Let's hold on.

(Pause)

Mr. Katz: Maybe you need to hang up and dial back in. I don't know. Nancy, or someone, if you could just the people on the line know that we know they're disconnected. And we'll get to it. Okay. Thanks.

(Pause)

Mr. Katz: So, everyone in the room, the problem is with the phone line coming into the hotel. So, the audio people are going to bring in their own hub, so they can connect to the world's phone system without the hotel. But it's going to be about, at least 20 minutes. So, we have a 20 minute break now, unexpected.

(Whereupon, the above-entitled matter went off the record at 11:23 a.m. and resumed at 11:44 a.m.)

Mr. Katz: So back to the table, please, everyone, and, Christine, sorry, this is a terrible technical glitch for you to have to deal with. We're going to have Christine carry on with her presentation with a cell phone assist. What's happened is the hotel phone system has crashed, so it's not the fault of our audio folks here, but they are in the meantime trying to set up an audio hub so they can circumvent the hotel system, but this should work for the presentation.

Just let us know on the phone if you can't hear Christine when we do it this way, otherwise we'll proceed and get the presentation in and then we'll worry about the interactive, hopefully we'll be back live again by the time we get to that. Okay, Christine.

Ms. Corwin: Okay. I will continue with the site description. In 1962, the State of New York's Atomic and Space Development Authority and NFS collaborated to build a privately owned nuclear fuel reprocessing plant.

Construction began in June of 1963 on land NFS leased from the ASDA and it took approximately three years to complete. The NFS reprocessing plant was built on 300 acres of land enclosed by a barbed wire fence and posted as a restricted area.

The reprocessing plant consisted of a complex of cells with the various supporting and operating areas grouped around them. The plant was arranged in the shape of a U with the fuel receiving and storage

facility on one end and the product removal facilities on the other. The chemical and mechanical processing cells were in the middle. Chemical operations were directed from the control room while mechanical operations were directed from operating aisles adjacent to viewing windows.

NFS received its license to receive and store fuel on May 27, 1965, and its operating license on April 19, 1966. Fuel reprocessing activities began a few days later on April 22nd.

From 1966 to 1972 the West Valley facility handled and reprocessed a total of 630 tons of fuel from nine different reactors during 28 campaigns while operating as a private spent nuclear fuel reprocessing center using the plutonium/uranium extraction process known as PUREX. One thorium extraction process campaign, known as THOREX, took place between November 15, 1968, and January 20, 1969.

West Valley processed fuels from light-water reactors from AEC-owned reactors, such as the Hanford N Reactor and a uranium/thorium fuel cycle core from the Indian Point 1 reactor.

Approximately 60 percent of the fuel processed came from the AEC and a majority of that fuel came from the Hanford N reactor.

West Valley recovered plutonium and uranium from irradiated fuels and delivered them as nitrates. The recovered AEC uranium was shipped to the Fernald plant and the plutonium was sent to Hanford.

Utility owned plutonium was either retained from the utility, or by the utilities, sold to industry, or sold to NFS for later resale for use in plutonium recycle.

Next I would like to describe the process operations that occurred at the site. Process operations began with the fuel arriving at the site in shipping casks.

The casks were unloaded under water and the fuel was stored in a storage pool. These operations took

place in the fuel receiving and storage facility. Fuel inverted bundles passed through a transfer canal into the process mechanical cell where sheering and sawing equipment removed hardware and segmented the fuel into fixed lengths. The baskets then passed into the chemical process cell where the segmented fuel was dissolved in acid. This process, known as leaching, dissolved the fuel leaving behind the cladding and any structural components. The uranium and plutonium are then separated and purified from the fission products in a series of extraction cells. The purified products were then shipped to their owners as nitrate solutions and after May 1971 sometimes were sent to the plutonium storage facility, which was owned and operated by the State of New York near the West Valley site. The high-level liquid waste generated in the process was stored in underground tanks and some of the acids used in the process were recycled for reuse.

The last fuel reprocessing campaign at West Valley was completed in November 1971. The last plutonium scrap recovery took place in March of 1972. The reprocessing plant was then shut down to complete a series of improvements intended to increase capacity and meet new regulatory requirements. Operations were limited to fuel receipt and storage and decontamination activities. However, after a decision by the AEC that a completely new licensing process would be required and facing more stringent requirements on plant effluents, NFS concluded that reprocessing no longer made economic sense.

So in 1977 management of the facility was transferred to the New York State Energy Research and Development Authority. In 1980 Congress passed the West Valley Demonstration Act which directed DOE to solidify the high-level radioactive waste and to decontaminate and decommission the tanks and facilities at the site.

DOE assumed operational control of the site on February 26, 1982, with West Valley Nuclear Services

as its contractor.

In accordance with our project internal dose reconstruction implementation guideline the primary data used for estimating internal doses are bioassay data, such as urinalysis, fecal samples, and whole body counting results. If these data are unavailable the air monitoring data from breathing zones and general area monitoring as well as surface contamination surveys are used to estimate the potential internal dose. If personal bioassay and workplace monitoring data are unavailable internal dose can sometimes be estimated using process information and data characterizing and quantifying the source term.

So if we begin with what bioassay data is available to us it is evident that DOE and NFS is unable to provide all internal monitoring data for claimants given the fact that NIOSH has found additional data beyond that provided by DOE and NFS for most of the claimants during the 1969 through 1973 timeframe.

For other claims DOE and NFS have provided data that NIOSH did not find in its data capture efforts. This leads NIOSH to conclude that neither set of data DOE and NFS provided or those obtained by NIOSH data capture includes all bioassay data.

Furthermore, NIOSH has no basis to conclude that the combination of both sets of data include all bioassay data. Given the potential for missing bioassay data NIOSH has concluded that the data are insufficient for estimating all internal exposures.

This table shows the available bioassay results for the entire operational period. These records were obtained through data capture efforts.

NIOSH's evaluation of the available bioassay data indicated a marked decrease in the number of plutonium and uranium bioassay samples starting in 1969 with a significant sustained decrease in the uranium bioassays.

Due to the inadequate bioassay information for uranium from 1969 through 1973 coupled with the inadequate bioassay information for mixed fission products in 1972 and 1973, a coworker model for all radionuclides across the 1969 to 1973 time period is not feasible.

NIOSH is still evaluating the 1966 to 1968 time period. Considering the small workforce of approximately 200 to 300 workers the development of a coworker model for some radionuclides for some years may be feasible, particularly for 1967 and 1968 due to the large quantity of data.

The next set of data we could use to estimate worker intakes would be workplace monitoring data, such as breathing zone air samples, general area air samples, and contamination surveys.

NIOSH was unable to locate any breathing zone air sample data for West Valley. The site utilized nasal smears as an indicator of possible intakes of plutonium and fission products, but the collection of the samples were incident driven. Additionally, a much higher action level was utilized than would currently be required for nasal contamination surveys. As a result there could have been unmonitored intakes for which the site did not take any action to follow up and assess the potential internal exposures.

NIOSH has only located air sample data sheets with results from March 1970 in a general purpose cell room and from 1973 in the analytical aisle, as well as copies of logbook pages with gross alpha and gross beta results from routine air monitoring from 1969 through 1973.

Surface contamination results indicate that relatively high contamination levels were common in many areas throughout the operational period. The contamination levels, both alpha and beta, were quite variable depending upon location with smearable contamination ranging from virtually non-contaminated to several million dpm per 100

centimeters squared.

Since the available data are gross alpha and gross beta NIOSH would need to make assumptions regarding the isotopic composition of these results in order to reconstruct doses.

In addition, the available documentation does not indicate any definite boundaries between radiological and non-radiological areas during the operational period. The site-specific and claimant-specific data available for the time period are insufficient to characterize employee movement across the site. NIOSH is therefore unable to define individual employee exposure scenarios based on specific work locations.

Due to the large uncertainties regarding isotopic composition of the contamination as well as occupancy locations and time for workers NIOSH finds it is infeasible to estimate worker intakes with sufficient accuracy using these data.

The next set of data we could use to estimate worker intakes would be source term data.

While there is some source term information that is known, such as process and source descriptions, the identities and quantities of the radionuclides of concern and information on the processes through which the radiation exposures may have occurred, there is important information that is not known.

As mentioned previously the available documentation does not indicate that there were any definite boundaries between radiological and non-radiological areas. Therefore, we are unable to determine employee movement across the site and the time spent in the various different areas.

Because it is not reasonable to assume that workers spent all of their time in the most heavily contaminated area or in the highest airborne radioactivity area we have determined that it is not feasible to estimate worker intakes using source term

data.

So to summarize, it has been determined for SEC-252 that there is insufficient bioassay and workplace monitoring data to reconstruct internal dose from uranium and mixed fission products from January 1, 1969, through December 31, 1973.

NIOSH intends to use any individual monitoring data that is available to conduct a partial dose reconstruction for individuals not part of the SEC.

The early operational period of January 1, 1966, through December 31, 1968, was not included in this evaluation because NIOSH has significantly more internal dosimetry data available to assess intakes for this period.

NIOSH is continuing to evaluate the quality and sufficiency of the data for this time period.

For SEC-252 for the West Valley Demonstration Project NIOSH has determined that estimating internal exposures to uranium and mixed fission products for the time period January 1, 1969, through December 31, 1973, is not feasible. And that concludes my presentation.

Mr. Katz: Where are we with the audio system? Let me just ask that.

(Off microphone comment.)

Mr. Katz: Okay. So we are still relying on cell phone linkage. How is the audio for the people on the phone?

Participant: I heard from outside it's better than it was.

Mr. Katz: Okay. I'm not sure I like to hear that, but the truth is important. Sorry. So I think we will try to just continue doing this with cell phone links and let us know if we have trouble.

But let's go to questions in the room, and we may

need the cell phone to move to Board Members when they are asking questions.

(Off microphone comment.)

Mr. Katz: Oh, okay. Alright, that's great. Okay, so Board Members, let's start in the room with questions for Christine. Josie, sorry.

Member Beach: Okay, now worries. Christine, I am just trying to understand why you excluded 1966. There is very limited analysis dated for that year also, and so that part of the question is and then when was the fuel received and when was the mechanical preparation done? Was that all done in '66? I'm going in and out.

Mr. Katz: Yes, I don't know --

Member Beach: I got the button pushed.

Mr. Katz: You were moving your mouth away from the mic. I don't know whether it's that, if you speak right into it.

Member Beach: Oh, you just got be right on it, okay. So were you able to get both of those?

Ms. Corwin: No, not really.

Member Beach: Okay. So what I am asking is why did you exclude 1966? There was very limited analysis data for 1966 and I understand the license for the work came in April of '66, but what started in '66, was there work done at that point?

On Slide 11 is -- I am mainly interested in the mechanical preparation. Did they do the cutting at that point?

Ms. Corwin: We did not include '66 because we wanted to evaluate all the data further to see what we had and we knew what we had in the later years so we didn't want to hold up on the SEC what we knew we would include in the SEC portion to focus on the early years where we needed to do further

analysis.

Member Beach: Well can you be a little more specific about '66 then because there is clearly no data then. I see in '67 and '68 there is, so --

Dr. Taulbee: May I give some input here?

Member Beach: Yes.

Dr. Taulbee: Josie, we are still looking at '66 through '68 right now. We want to get a timeline of the sequence of operations when they began to cut the fuel, dissolve it, separate it, and then correspond that with the bioassay that we see in '67 and '68.

We don't have that timeline developed yet and so we're further developing that.

Member Beach: Okay.

Mr. Katz: Thank you, Tim.

Member Beach: Thanks.

Mr. Katz: And Josie.

Member Richardson: Just for clarification is that so you can develop a coworker model?

Dr. Taulbee: That's so we can determine whether it's feasible to reconstruct the doses. So we haven't gotten to the coworker model yet from that standpoint.

Now we will be looking at that certainly for the '67 and '68 time period but '66 we need to know a timeline of when that data begins to become available.

So we're still evaluating that time period, that's the critical thing. We didn't want to hold up this particular SEC while we are still evaluating this when we know we can't in these latter years, so that was why we cut it at this point.

Mr. Katz: Brad?

Member Clawson: So Tim, have we done data adequacy or is this what part of this is, this is what we're going through right now is the data adequacy and compliance.

Ms. Corwin: Correct.

Member Beach: So the '68 onward you guys have already come to the determination you can't do it and you're going to, this is why we're going it this route?

Ms. Corwin: That's correct.

Dr. Taulbee: Right.

Member Beach: Okay.

Mr. Katz: Paul?

Member Ziemer: So for the 33 cases that have been already reconstructed does that imply that you had sufficient individual data for those people?

I mean the chart showed that there were 33 dose reconstructions completed.

Ms. Corwin: Go ahead.

Dr. Taulbee: At the time when those dose reconstructions were completed we thought we had complete records.

In the process of doing this evaluation and capturing more records is when we found the discrepancy from what DOE was providing and what we were able to capture, and so we will go back and look at all of the previous cases.

Member Ziemer: Thank you.

Mr. Katz: David?

Member Richardson: Thank you. My question is exactly along those lines. I was struck by, here the -- the distinction here between -- Sometimes we have the lack of feasibility due to inadequacy of records, the inability to obtain information.

This distinction here is that DOE is unable to provide complete internal monitoring data for claimants and the evidence of that is that NIOSH is able to obtain additional information.

So it's not that the records do not exist, it's that when you requested them they weren't complete?

Ms. Corwin: Correct.

Member Richardson: Okay. Thank you. I just wanted to make that clear. And you have made that determination?

Ms. Corwin: Correct.

Member Richardson: So NIOSH has the ability to say that there is a problem with reconstruction based on the inability, I guess, of Department of Energy to provide to Department of Labor and Department of Labor to transfer the information to NIOSH to establish the worker's exposure history?

Ms. Corwin: Correct.

Member Richardson: Is this one of the DOE legacy management sites?

Ms. Corwin: I know some workers came from DOE and some came from NFS directly.

Member Richardson: Okay.

Ms. Corwin: And there is a problem getting it from either source in some cases.

Member Richardson: Okay. Because, again, and I am just tying this back into this question of for Fiscal Year 18 DOE reports zero late out of 1309 requested records for claimants from the DOE legacy management sites.

So there was a response from DOE, you obtained information, NIOSH independently went to search for records and found more information than DOE had provided?

Ms. Corwin: We didn't go to specifically look for those records for those individuals. When we were at the site and did data capture efforts we captured records and when we evaluated the data we realized that we had some records that weren't provided to us and so that's how, you know, we discovered the issue.

Member Richardson: Right. Because for some years if you found -- I mean apparently you found one or two or three bioassay results --

Ms. Corwin: Correct.

Member Richardson: -- and you had been told there was zero or something, so it's clear that there was information.

Mr. Rutherford: I would like to add though that there is a significant decrease in uranium bioassay, it was actually driven by the site changing their process. You know, they stopped doing a number of those bioassay samples, so, you know, that large drop is because of that.

Member Richardson: Yes. Oh, yes, and I understand there is different information available. I am just trying to wrap my head around this distinction here between there being the creation of an SEC because you can't obtain direct -- and is the legislative issue, is it like a chain of custody in order to do a dose reconstruction for a worker you need to, those dosimetry records need to have provided to NIOSH to do the dose reconstruction through DOE or why can't you use the records you --

Mr. Katz: No. I think I understand the misunderstanding here. What Christine is saying is that we have records that DOE has not provided showing that they don't have complete records.

Member Richardson: Yes.

Mr. Katz: They also provided information that we don't have showing that we don't have complete records, but there's no legislative matter. If we had

all the records and DOE had none of them we'd be fine. So that's not a legislative problem, or what have you. There is no legislative matter here. The only issue is that it is clear from our set and their set that neither is complete.

Member Richardson: And the origin of "our set" is?

Mr. Katz: Is from the data capture at the site.

Member Richardson: Okay.

Mr. Katz: So versus the regular process of these sites churning out records as they are requested for dose reconstructions.

Member Richardson: Okay. Thank you.

Mr. Katz: Sure.

Member Beach: I have one more question.

Mr. Katz: Josie, of course.

Member Beach: This is the million dollar question. What's the timeframe on those first few years?

Ms. Corwin: Well, we are continuing right now to put together a schedule to evaluate the data but we don't have a date as of yet.

Mr. Katz: So let's see if we can get, if this can work for people who are on the line. We may need to have someone on a cell phone repeat what they say so that everyone here can hear it.

Unless you can put it to a mic, I can see if that works.

(Off microphone comment.)

Mr. Katz: Yes, you could try that, if that works. Otherwise, we'll need a little relay, telephone relay. Go ahead. So any Board Members on the line have questions before we get to -- and the next point will be the petitioner's have a chance to comment, too, but Board Members right now.

You're going to have to tell me whether a Board member is trying to speak or not.

Participant: We need to be able to hear it.

Mr. Katz: No, I can't hear it. That mic may be not even operative.

Participant: Nobody has talked yet.

Mr. Katz: Oh. It sounds like someone is talking, but --

Participant: You and me.

Mr. Katz: Oh, I see.

(Laughter.)

Mr. Katz: Very confusing. Very confusing.

Participant: Can some of the Board Members speak up so we can see if this relay will work?

Member Beach: In the room or on the phone?

Participant: No, on the phone.

(Off the record comments.)

Member Anderson: Can you hear me?

Participant: So that's Dr. Anderson.

Member Anderson: Mr. Lockey, I can hear you.

Mr. Katz: Yes. Okay, so presumably we have no questions from people on the phone. Let's go back --

Member Anderson: I don't know if they can hear us in the room.

Member Clawson: Yes, we can.

Mr. Katz: Yes, we can hear you, or we can do better than what we are doing right now by bringing that to a mic, but --

(Off the record comments)

Mr. Katz: Okay, but -- so are we hearing that Board Members, is that --

Participant: Yes.

Mr. Katz: Okay, alright. So do we have any more questions in the room?

Member Beach: I do. I was thinking about thorium and I lost track of that, so how are you, can you reconstruct on the thorium?

Mr. Katz: So, Josie --

Member Beach: And I know that is between the two initial years but it also goes into the SEC timeframe you are looking at, the 83.14.

Dr. Taulbee: We really didn't address it from this standpoint. So we know we can't reconstruct the uranium and we know we can't reconstruct the fission products in those latter years, and so from the thorium standpoint it just really hasn't been evaluated from that standpoint. We will be looking at in that earlier time period of '66 to '68.

Member Beach: Earlier, okay.

Mr. Katz: Okay. Do we have other questions from Board Members?

(No response.)

Mr. Katz: Alright. Now, the petitioner, we have a petitioner in the room, we are grateful for that in this circumstance in particular.

Mr. Frowiss, Jr.: Microphone on.

Mr. Katz: So you want to identify yourself and then carry forward from there. Thanks.

Mr. Frowiss, Jr.: Good afternoon, Mr. Chair, and Members of the Advisory Board, Director Calhoun and NIOSH staff. Thanks for the opportunity to speak

today.

My name is Al Frowiss, Jr. My company, the Atomic Workers Advocacy Group, has filed over 1000 cases under EEOICPA and represented about 1200 individual claimants.

I have attended a few of these meetings, with this being the second petition I have directly participated in.

I appreciate the time and effort all of you put into these very important issues about worker safety, health, compensation, and benefit programs all current and former nuclear workers so richly deserve.

I am the petitioner on this SEC along with former West Valley employee, [identifying information redacted] could not attend due to his progressive and terminal illness which was caused by exposure to ionizing radiation.

First, I would like to acknowledge and thank the staff members from NIOSH and Christine Corwin for an excellent presentation despite all the video assisted replay issues. Thank you.

We are pleased that NIOSH recognized the need to initiate the 83.14 for this worksite and I expect and hope that the Board does move forward with a positive recommendation.

We do have a few questions for the record which we hope to be addressed by Members of the Advisory Board or NIOSH and, yes, you've already asked some of the questions, so I wrote this last night before things were talked about today.

Question 1. The Evaluation Report characterizes general work processes, specific work processes, and specific timeframes, what is known about work areas and so forth.

However, we are curious as to why now, why this claimant and this claim have they triggered an

83.14?

From the ER there 35 or 34 prior cases that fit into the '69 to '73 timeframe. How is it that at this time NIOSH has determined that an 83.14 was warranted when the research was done ostensibly by 2007?

The next question, Number 2. DEEOIC/NIOSH stats indicate there were 150 claims for West Valley to date over all time periods, including AWE, DOE operations, and remediation period.

A question that's already been asked, and I'll say it again, why not break out the number of claims in the '66 to '68? We know there is 150 total, how many claims were affected in the '66, '67, '68 that we are talking about?

Is it 20 claims, is it 100 claims? It would be good to know. I think it is especially relevant to know those numbers so we can decide what we are actually deferring.

Point 3. The ER makes specific reference to poor quality of service by the vendor performing bioassays in mid-1968 (presumably for the work prior to that time) and also changes in operations for THOREX processes, but the lack of bioassay data is identified as a primary basis for the 83.14.

If I have that wrong, I apologize. That is my interpretation. The original petition that we received as petitioners was stated that this was going to be for '66 to '73.

The reference table showing monitoring data appears to show plenty of counts for '67 to '68. What else is it that we don't know or should know about this timeframe given that there has already been a statement in the ER that the company providing bioassay work was deficient?

Further, we contend that this was a high profile operation that does not fit the old AWE work profile or Site Profile. In our opinion standard AWE coworker

modeling is not appropriate for this facility. It was a modern facility in the State of New York in the late 1960s post-Love Canal and everything else. There are likely AEC, State, and DOE audits, inspection reports and licensing documents to substantiate that this is a significantly different site than the classic AWE sites found in Ohio and upstate New York and everywhere else.

Point 4. This really goes to NIOSH and a couple of procedural issues. In this matter the claimant was contacted three months after the ORAU interview and the petition process initiated without the authorized representative's knowledge of the process. I found out a week later. I reached out to the designated NIOSH contact via email and phone. The phone numbers didn't work as listed on the NIOSH site and the email did not get responded to for a couple of days. I sent an email to the DCAS general email site and Dr. Hughes, thank you very much, did respond right away and got things back on track. Subsequently, NIOSH's next communication to petitioners was that the SEC would be from '66 to '73 and it was only after receipt of the ER on August 12, ten days before this meeting, nine days before, that we were informed of the changes in dates.Yesterday I received a copy of the presentation delivered today at 4 o'clock in the afternoon. I suggest that there is operational issues with the communication to petitioners, not just on this case but on other petitions that needs to be looked at.

The last thing I want to say, or do, is submit a copy of the co-petitioner's summary of his work into the record and his radiation exposure into the record for, you know, history on this, and I'll do that via email to Ted, to Mr. Katz after this meeting. [identifying information redacted], the co-petitioner, suffers from glioblastoma multiforme. He was placed in hospice on Monday, August 19th. He probably won't be around to see the end of this or the approval of this once it goes through the entire process.

I hope for a positive decision on the SEC that is

before you and I hope for a quick action on the other years. Thank you for your time.

Mr. Katz: Thank you. Let me just note one thing for what you were planning to submit.

Mr. Frowiss, Jr.: Yes?

Mr. Katz: It sounds like you are planning to submit some quite personal information and for that it won't be good enough for you to submit it. I will need to have confirmation from the claimant that they want this on public record.

Mr. Frowiss, Jr.: Yes.

Mr. Katz: Okay.

Mr. Frowiss, Jr.: Okay.

Mr. Katz: Thanks. So let's go back now if we have -- Do we have more questions from Board Members? Yes, we do. David Richardson we'll start with.

Member Richardson: Could I -- I'm looking through these supplementary tables here to see where the in vivo records that NIOSH received came from versus what's been returned by DOE and it appears that this was in 2016 a search of the Federal Records Center, Lee's Summit, in vivo monitoring results. So it wasn't as though NIOSH went to the site and went through boxes or something, you made a search or a request from the Federal Records Center, is that correct?

Ms. Corwin: That is correct, but we also made a site visit and did data capture efforts and whatever we collect within that effort we also have that information available to us.

Member Richardson: Yes, and I mean it looks like there is other sorts of environmental reporting and some shipping information.

Ms. Corwin: Right.

Member Richardson: But the in vivo records which

are the subject of the definition of the problem with data capture and the basis for the SEC you obtained by going to the Federal Records Center and then you couldn't obtain comparable copies of the information from DOE?

Ms. Corwin: I don't know specifically on the in vivo. I'd have to -- I can't remember that information.

Member Richardson: Okay. Thank you.

Mr. Katz: Other questions from Board Members in the room? Loretta.

Member Valerio: Can you hear me alright?

Mr. Katz: Yes.

Member Valerio: So I understand the '66 through '68 timeframe is still under review by NIOSH, but my question is what about after the 1973 timeframe from when they --

(Simultaneous speaking.)

Mr. Katz: Wait, hold on one moment. I am getting a --

Participant: She's not close enough.

Mr. Katz: You're not speaking close to the mic for people on the line to hear you.

Member Valerio: Is that better?

Mr. Katz: Yes, better.

Member Valerio: Alright. So my question is from '73 to I guess 1980 when DOE was directed to decontaminate and decommission the site at what point will that timeframe be reviewed?

Dr. Taulbee: That is another area that we will be reviewing in the future. This is a residual contamination time period. What really complicates this particular instance is that there is bioassay data in that time period of a residual contamination period

when there isn't active DOE work. So how we sort that out is complicated from that standpoint and we haven't begun that evaluation yet.

Mr. Katz: Thanks, Tim. Other questions in the room from Board Members?

(No response.)

Mr. Katz: How about from my Board Members on the phone, do we have any further questions?

(No response.)

Mr. Katz: Someone needs to give me a head's -- Okay, it sounds like no questions from the Board Members on the phone. Tim, you wanted to address something?

Dr. Taulbee: Yes, I can address one particular question from the petitioner about the number of claims in that earlier time period. We had looked at that and it is between ten to 20 additional claims that would be in that early time period of '66 to '68.

Mr. Katz: Thank you, Tim. Okay, so we've had our questions. We have a proposal from NIOSH to add this Class for which they have completed their research, it's an 83.14, so we need a motion from the Board. Josie?

Member Beach: I am going to go ahead make the motion to accept the 83.14.

Mr. Katz: Thank you, Josie.

Member Clawson: I'll second.

Mr. Katz: And Brad Clawson has seconded it, so that means it's now on the table for discussion. Do we have any more discussion of adding this Class before we go to votes?

(No response.)

Mr. Katz: And I'll need someone with a cell phone to

help me with the votes because I can't hear them.

Member Beach: I only have one discussion point. I don't believe we have a Work Group for this. Would this fit in any of our current Work Groups or would we --

Mr. Katz: No, I think it will probably end up deserving its own Work Group --

Member Beach: Okay.

Mr. Katz: -- but until NIOSH finishes its work we won't need it.

Member Beach: Right, right, right.

Mr. Katz: But we will keep that in mind. Alright, so we're going to votes. And let's make this clear what we have. We have a motion to add the following Class based on NIOSH's recommendation.

All Atomic Weapons employees who worked at the West Valley Demonstration Project in West Valley, New York, during the period from January 1, 1969, through December 31, 1973, for a number of work days aggregating at least 250 work days occurring either solely under this employment or in combination with work days within the parameters established for one or more other Classes of employees in a Special Exposure Cohort.

So that's the Class we have a motion to add. So, let's go alphabetically. Anderson?

Member Anderson: Yes.

Mr. Katz: Okay. I think I heard yes.

Member Anderson: Yes.

Mr. Katz: Okay, thank you. Josie?

Member Beach: Yes.

Mr. Katz: Brad?

Member Clawson: Yes.

Mr. Katz: Field?

Member Field: Yes.

Mr. Katz: Kotelchuck?

Member Kotelchuck: Yes.

Mr. Katz: Lockey?

Member Lockey: Yes.

Mr. Katz: Richardson?

Member Richardson: Yes.

Mr. Katz: Roessler?

Member Roessler: Yes.

Mr. Katz: Schofield?

Member Schofield: Yes.

Mr. Katz: Valerio?

Member Valerio: Yes.

Mr. Katz: And Ziemer?

Member Ziemer: Yes.

Mr. Katz: Okay, it's unanimous, he motion passes. The Class will be recommended to the Secretary. Thank you.

And with that we somehow managed to get through to lunch. I hope we have less provisional arrangements after lunch, but we are off now and back I believe at 2 o'clock. Is that correct? Yes, we're back at 2:00. And at 2 o'clock we have another petition, so please try to be timely in rejoining us. Thank you very much and thanks for everyone's forbearance. Bye-bye.

(Whereupon, the above-entitled matter went off the

record at 12:25 p.m. and resumed at 2:01 p.m.)

Mr. Katz: So everyone who is just joining us newly now, I'll just note we had phone problems with the whole hotel phone system actually, it basically went down and so we had to bring in our own phone to make this work for this afternoon. We were playing cell phone, microphone tag earlier.

Let me mention a few things and then we'll get started. But for people who are just joining us now, the agenda and the materials for today's meeting are on the Board's website, the NIOSH's website under scheduled meetings, today's date. So you can find those materials, follow along. The agenda is there. The agenda has a Skype link for those of you that deal with that kind of thing and want to watch the slides online, you can do that. But you also have the presentations as a PDF. And you can pull them up on the website or download them and follow along yourselves if you want.

And let me just mention again, and I'll mention it one more time later, but we do have a public comment session, which begins at 6:00 p.m. But it could begin earlier because we have a Y-12 SEC petition. I don't know how long that will actually take for the discussion and so on, but we'll start the public comment immediately after that. So please be here at 6:00. We'll definitely keep the public comment session going at least through the beginning. But when we run out of public comments we end that session. So please be here at the beginning of that.

And now I think, yes, we're all set, we have all our Board Members here. I want to check on the line.

(Roll Call.)

Mr. Katz: Okay, great. So we have our whole Board with us and off we go. Santa Susana, and the first present is Bob Barton from SC&A.

He had been, just to remind people, we addressed the Santa Susana petition at our last Board meeting

in April. And SC&A had been tasked with some follow-up items. And we had tabled a motion that was left by the Work Group to deal with the SEC petition.

So, Paul, you are better than me at certain procedures. Do we un-table it before we have the presentations or just only --

Member Ziemer: If it was tabled you have to --

Mr. Katz: Yes.

Member Ziemer: -- have a motion to un-table it.

Mr. Katz: So, we need a motion to un-table this to begin with presentations and discussions.

Member Clawson: Un-table the motion.

Mr. Katz: Okay, thank you. And then we need a second.

Member Ziemer: Second.

Mr. Katz: Second, okay. All in favor?

(Chorus of ayes.)

Mr. Katz: Any opposed? Okay, so it's un-tabled and with us. And, Bob, we're ready for you.

Santa Susana Area IV SEC Petition #235

By Mr. Bob Barton, SC&A

Mr. Barton: Okay, thank you, Ted. As Ted mentioned, my name is Bob Barton and I'm with SC&A and we're talking about SEC Petition 235.

And as Ted mentioned, SC&A had presented its findings at the last Board meeting in Pittsburgh, but there were a couple of follow-up items specifically brought up by the petitioner, CORE Advocacy. And are simply of interest of the Board. We had discussed them a little bit at that meeting, but frankly they hadn't been fully documented at that time. So this is really the follow-up to that discussion. So hopefully

it's beneficial to you all.

So, the remaining petitioner concerns were basically two items. That the Board had requested that SC&A go back and formally document, investigate and come to some recommendations on.

The first item is called the Historical Site Assessments that were developed through the EPA in terms of the program relatively recently in 2012. And what those did is they indicated numerous areas at Santa Susana where americium and thorium had been listed as radionuclides of concern. And we'll get into that a little bit, what that term actually means.

That's really sort of the first item. And then as a follow-on item to that, specific part of those Historical Site Assessments was related to building 4023, which evidence had suggested they had been involved in what's known as the TRUMP-S program or TRUMP-S activities, experiments that might have occurred after 1988. Which is the current cutoff date for SEC-234.

And again, a little footnote here on the slide, TRUMP-S stands for Transuranic Management by Pyropartitioning-Separation.

So for the first --

Mr. Katz: Bob --

Mr. Barton: -- Historical Site Assessments --

Mr. Katz: Bob? You can't hear me.

Mr. Barton: -- I'd like to just basically read --

Mr. Katz: Bob? Bob?

Mr. Barton: Yes.

Mr. Katz: Just let me interrupt a second. I failed to say, but I should have because I can hear background sound from the phone. Folks on the phone, everyone should have their phones muted.

Only one person, Bob Barton, should have their phone open. If you don't have a mute button, press *6 to mute your phone. But please all mute your phone because we're hearing background sound which makes it hard for everyone to hear. Thank you. And, Bob, go ahead. Sorry.

Mr. Barton: Okay, thank you. Basically the purpose of these Historical Site Assessments is stated really right in the executive summary. In these Historical Site Assessments with several volumes based on what area of Area IV they were specifically looking at.

But the stated purpose of these documents, and I'll just read this into the record, the objective of the HSA component of the radiological study was to provide a comprehensive investigation that identifies, collects, organizes and evaluates historical information relevant to nuclear research operations as it pertains to radiological contamination in the Area IV Study Area. Once these areas were identified, potential areas where radiological contamination may exist at the site were identified for sampling.

So really it is, in a sense, is very similar to what's done under this program. It's going back and trying to put together a timeline of operations and source terms to try to figure out in 2012 what could still be there in soils and building materials for remediation purposes.

So we examined those 2012 site assessments and we specifically looked for operational work that might have involved thorium and americium. Recall that SEC-234, which ran up through 1988, the basis of which was inability to reconstruct internal dose to those two containments, thorium and americium. So we did specifically look for that. But we also looked in general for any sort of information that might be relevant to SEC-235, which is, again, post-1988.

Also, we specifically looked at each of the areas that had been identified by CORE Advocacy in their 2017 report which was titled, Locations of

Americium/Thorium/ Associated Progeny and Approximate Dates of Building Demolition.

So, we looked at all of those reports in general for the SEC, but also specifically addressed the areas of a site that had been pointed out by the petitioner. And all of those, the results of that investigation, however, provided in a memo distributed last month titled, Evaluation of petitioner Specific Concerns Regarding SEC-235.

We didn't find any evidence of operational activities that involve americium or thorium, again, occurring after 1988. Because, again, that's the cutoff for SEC-234, which is in place.

And also, again, I said we looked specifically at those areas that had been identified by CORE Advocacy where americium and thorium were listed as radionuclide of concern. And this is sort of a rough breakdown of all those area. I tried to categorized them into general terms here. But about a third of them, those areas identified, had actually already undergone, undergone D&D prior to 1989. So they had already been decontaminated and decommissioned prior to the period we're really interested in.

But one-fifth of the, ten of the areas, were really only included in the Historical Site Assessment and indicated that americium and thorium might be of materials of concern, because they were in close proximity to other buildings, such as the hot laboratory, the radioactive material handling facility, and a few others. So the determination was made, I guess, to spread a wide net and say, well, these buildings weren't really used for any radiological research or activities, but because they're so close to these other buildings it's possible that contamination might have migrated over to the soils or the outside of the building or even inside the building. Another 20 percent were the actual facilities that definitely historically handled transuranic material and thorium, which is obviously of concern. But again,

those were all prior to 1989 and that period is already covered by SEC-234.

Six of the identified areas, 12 percent of the total identified by CORE Advocacy, were storage facilities only. So, they might have stored the material but there was no real processing of the material or any operational activities.

Another five areas, so roughly ten percent of the total, had already been demolished by 1989. So, they had been taken down all the way. Sometimes all the way completely out or sometimes just down to the concrete slab.

One area handled fuel sources, which could have included americium, because that was used as a calibrating source. And that one area was basically a health physics counting laboratory that supported the radioactive material handling facility which purpose at that time was to essentially handles waste associated specifically with D&D activities. Not operations, but D&D.

And one of the facilities actually didn't handle thorium or americium, though thorium 234 had been listed as a containment of interest. And thorium 234 is actually part of the uranium, the K-chain. So it's not the type of thorium that we typically associated with the sort of feasibilities.

So that's part of the uranium source term. And of course, uranium was monitored via bioassay during the operational period. And then also during this remediation period.

So that's the general on the Historical Site Assessment.

Moving on specifically to Building 4023, which was a topic of some discussion at the meeting in Pittsburgh. And the reason this whole thing came about again, in this Historical Site Assessment specific to this building it says, in 1989 reports appear to indicate that Building 4023 served as a support facility for the

Transuranic Management by Pyropartitioning--Separation operations in Building 4020. Building 4020 is the hot lab by the way. Which is located in the area HSA-5D.

Atomic's International requested DOE's approval to utilize the facilities for a two-year period beginning July 1988 for the Kawasaki Heavy Industries and the Central Research Institute of the Electric Power Industry of Japan. That's who it was sponsored by.

The material used in this experiment was listed as including uranium, neptunium, plutonium, and americium.

So, obviously when you see this it certainly is an issue that needs to be thoroughly investigated because that is an operational activity that involves transuranic material. And that sort of activity needs to be sufficiently addressed in the dose reconstruction process.

So that's sort of where it all started out. So we basically took that and went to the underlying references and kept digging.

What I'm basically going to go through is a number of documents that sort of describing the planning steps in various activities related specifically to this proposed TRUMP-S projects. And one of the things that you really have to sort of pay attention to is the language that they use. Most of these quotes that I'm going to pull out are in future tests. In other words, they're talking about things that are about to happen or will happen in the future. And you'll see that as we go along.

So, starting all the way at the beginning, we're in October 1988, again, this is technically part of the SEC-234 period, but we felt this is sort of the beginning of the story. There is an internal letter that identified deficiencies and uses that location for this TRUMP-S project that the lab was trying to basically setup and run at Santa Susana.

Fast forward to July of 1989, you have another internal letter that documents a planning meeting. And it was related to the glove box that was proposed for use in this TRUMP-S project. And again, it's a planning meeting.

And we have an undated report. We believe it's probably from mid-1989. Specifically, probably August of 1989 based on handwritten note on the document which appears to be a date. And that document says, a meeting was held to discuss the disposition of the waste to be generated from the TRU partitioning tests. Since the waste will contain transuranics and cadmium, the waste generated in late-1989, early-1990 will be TRU mixed waste. And then it talks about who will be in contact with who to determine what steps are going to be needed to plan for this experiment that will be generating waste. Again, we're talking about future tense.

A little later in October of 1989, they had a test readiness review, which is basically they get all the parties involved. And this is, again, specific to the glove box; is this glove box going to be sufficient? Is the instrumentation sufficient? Is the, has it been properly leak tested? Are the atmospheric levels within the glove box appropriate? That sort of thing.

Also in that month, again, October 1989, there is some internal evidence to describe the meeting minutes. That says, the following action items resulted at the meeting. These action items must be completed prior to beginning the radioactive portion of TRUMP-S. So once again, this indicates that actually running the experiment with the transuranic materials had not yet started.

Fast forward to February of 1990, there's a letter from Rockwell International to the Nuclear Regulatory Commission that says, this is in reply to your letter regarding recent transmittal wherein we provided additional information regarding the TRUMP-S program to be conducted in the Rockwell International hot lab. Again, to be conducted.

Also in February 1990 there's a technical progress report. These would be periodic reports that come out. And it says, while Rockwell was awaiting DOE permission to start up the tests pending DOE review of all the NEPA action description memorandum, Rockwell management concluded it would be impractical to continue the TRUMP-S project beyond Stage 1 activities at the Santa Susana field laboratories. As a result, an effort was undertaken to locate a facility where the TRUMP-S actinide tests could be conducted for both Stage 1 and Stage 2.

Again, in February 1990, this is actually a newspaper article from a local periodical, and it talks about private citizens' opponents to this proposed TRUMP-S program. The newspaper article stated, the case has challenged Rocketdyne's record of credibility in monitoring itself, the company's described worst case scenario for its planned TRUMP-S project, the emergency contingency plan and several other aspects of the company's application. Rocketdyne is seeking permission to keep the lab open through October 30th to complete one last experiment called TRUMP-S, or Transuranic Management by Pyropartitioning-Separation. And has announced plans to shut it down afterwards. Originally Rocketdyne was seeking a ten year license extension but cut its request to one year left last October.

As a follow-on newspaper article, this one is from May of 1990, so about three months after that previous article, Rocketdyne announced in April that the hot lab days were over. One last experiment, called TRUMP-S, originally scheduled to take place in the hot lab, was relocated to the University of Missouri at Columbia in the heed of public challenges for the company's request to get the project licensed by the U.S. Nuclear Regulatory Commission. And it goes on to say, about the experiment would have been in the glove box. And in fact, they were still facing resistance in Missouri as well to get the project underway.

So, SC&A's conclusions remain unchanged from what

we talked about back in Pittsburgh in April. And those conclusions are that those 2012 Historical Site Assessments, while they indicate numerous areas where you would expect to find residual contamination, there actually, we did not find any evidence that there was operations going on besides D&D activities.

So, while we agree that there is residual contamination from historical activities that occurred prior to 1989, any exposure to that would be really --

(Audio interference)

Mr. Barton: Did anyone else hear that? Okay, it seems to have gone.

Furthermore, the evidence suggests that the radiological portion, at least, that the TRUMP-S experiment never actually occurred at Santa Susana. Though it's clear there was significant planning and licensing steps. And they designed the glove box, they had it ready to go but they just could not get the proper authorization and licensing to conduct that radiological portion.

And finally, really most importantly, I think it's important to say that we're not suggesting that residual levels of americium and thorium didn't exist and that there was no exposure potentials to these materials. We're saying that the exposure potential was related to remediation activities and therefore it still needs to be considered in the dose reconstruction process. And NIOSH agreed with that. And at the last meeting, steps were being undertaken to develop sort of exposure models to account for exposure to those radiological workers who were performing the D&D activities so that that can be accounted for. But we did not find any evidence of operations occurring with those contaminants. So, that exposure model, I believe, might be still under development by NIOSH or I'm sure they can provide an update on that.

And that concludes my presentation. I'd be happy to

answer any questions.

Mr. Katz: Thank you, Bob. I'll give everybody a moment.

Mr. Barton: I can't hear anybody, am I still on the line?

Mr. Katz: No, no. Yes, I hope you can hear me. I'm just giving everybody a moment. Okay.

Mr. Barton: Okay.

Mr. Katz: So, Board Members in the room first, do you have questions for Bob? Phil.

Member Schofield: The time frame for this SEC that's been proposed is when we had Controls for Environmental Pollution as the primary company doing the bioassay, as we know all their data was falsified so it's unreliable. And that's one thing that needs to be aware of, the fact that there was, are areas of contamination in some of these buildings, even though TRUMP-S did not go forward. It would still have the potentials of people getting exposed.

Mr. Barton: I'm not sure if I heard what the exact question.

I can speak to the, SEC-235 qualified for evaluation because of that Controls for Environmental Pollution data falsification essentially. And that was for a two year period from mid-1991 through mid-1993. I guess the current, the proposed resolution to that is that, and again, those bioassay, they weren't for americium or thorium, which you really can't bioassay for, but they did cover plutonium, uranium and mixed-fission products. For that specific two-year period, it's been proposed, and I believe the Work Group agreed, that what would happen is the operational derived co-worker values would be used for that period and perhaps the surrounding periods. So, essentially you would be applying operational plutonium and uranium exposure data to the residual period as a means to cover that, again, two year gap

where the bioassay is not to be trusted. I don't know if that answers the question.

Member Schofield: Who did the in vivo monitoring?

Mr. Barton: Yes, there was also an in vivo monitoring program in place at the time.

Member Schofield: That was not the same contractor, correct?

Mr. Katz: Tim.

Dr. Taulbee: That's correct. It was Helgeson and Company that came in and did the whole body counting. So it was not CEP that did the whole body counting during that time period.

Mr. Katz: Could you hear that on the line? Could you hear it, Tim?

Mr. Barton: Was the question, if the in vivo was contracted out? I'm not --

Mr. Katz: Yes. So, Tim --

Mr. Barton: -- sure on that.

Mr. Katz: Tim answered.

Dr. Taulbee: Yes.

Mr. Katz: It was not the same contractor that was, who's data was --

Dr. Taulbee: Correct. It was Helgeson that did the whole body counting. They brought the mobile whole body counter in and did the whole body counting during that time period.

One other thing, if I could, to just follow on with what you were saying there, Phil, during that time period, because that is the period in question, from '91 to '93, there was several things that were done.

We looked at in the SEC, a comparison of the bioassay before and after that time period of '91 to

'93, where the bioassay's in question. And what we found was that there is virtually no difference between those two in the operational period. The bioassay were much higher. So we feel that that is bounding.

That was the basis for us saying that we could do dose reconstruction. The operational period was a bounding era for this particular co-worker group that was doing remediation.

The in vivo counts are available. That's from a different count, or a different company. They didn't show any intakes.

Rocketdyne itself did additional follow-up of bioassay after the CEP issue was identified in 1994 of workers who worked there at that time period. And they didn't see any intakes when they did the follow-up bioassay.

And so, we looked at the operations of what were they doing during that time period, the before, during and after. Did any of the operation procedures change, nothing changed during that time period.

So we feel that the bioassay during the operational period, where a co-worker from the '88 to '91 time period and then post-1993, '94 and forward to '96, I think it is, can be used to bound and estimate the doses for these workers with sufficient accuracy.

Mr. Katz: Thank you, Tim.

Member Schofield: Do the health physics have a record of people who came up from like De Soto and stuff who worked on some of these --

Mr. Katz: Phil, can you talk into the mic? Phil, please talk into the mic please.

Member Schofield: Okay. Are there any records of personnel from like Canoga, De Soto, coming up to the facility and helping out in like a daily logbook or something from the health physics personnel?

Mr. Barton: I'm not sure if that one is for me. I think --

Mr. Katz: Lara did --

Mr. Barton: -- it's recognized that personnel between the various facilities, including De Soto, did sort of rotate in and out. Now, whether there is logs available to say when that happened, I don't believe we currently have that information. It is -- it has been found through interviews that people often did rotate. Especially health physicists between De Soto and areas and Area IV. Depending on what the need was.

Mr. Katz: Lara, did you want to add something?

Dr. Hughes: No, not really. I think Bob covered it.

Mr. Katz: Okay, good. Do we have other questions from Board Members in the room? David.

Member Richardson: In the quotes that you provided on the technical progress report, there is a reference to Stage 1 and Stage 2 of the project. Could you define what those are?

Mr. Barton: I was not able to find a strict definition for what that meant. I can speculate that Stage 1 would have been all those planning activities, including setting up the glove box, getting it leak tested, planning what to do with the waste once that experiment started.

As for specific definitions I don't know, but I would also point to one of the reports where it says, before you can even start up the radiological portion of this test, these specific actions need to be taken.

So I guess that leads me to believe that Stage 1 would have been non-radiological activities and that the radiological portion, which is really what we're interested in, doesn't appear to have actually happen at Santa Susana.

Mr. Katz: Well, and that would be consistent with, I

think, Bob, what you reported at the last meeting, which was, the licensure was never received for doing the radiological work.

Mr. Barton: That's correct. And I think it's really kind of reinforced with those newspaper articles at the very end where they talk about the TRUMP-S activity that was planned to occur in the hot lab. But again, under the intense public scrutiny, legal fillings were made and they were having trouble getting the proper authorizations from the NRC, and from DOE, to really start up the tests. It just appears like they wanted to get that last experiment in and it just didn't seem like it was going to happen at Area IV, and so that's why they eventually moved it to the University of Missouri. And that was also our conclusion in last April in Pittsburgh.

Mr. Katz: Do I have any questions for Board Members on the phone?

Member Anderson: No.

Mr. Katz: Okay. Let's go then, we have now the SEC petitioner is here. I don't know if she is planning to comment or not, but she is welcome to. Of course she is she says. Welcome, D'Lanie.

By Ms. D'Lanie Blaze

Ms. Blaze: Thank you. I'm D'Lanie Blaze, the SEC petitioner. As always, it's a privilege to address the Board.

CORE Advocacy has obtained information that confirms operations with americium and thorium at Area IV until 2008. But we did run across another document today that potentially puts processes with these materials at the site until 2010. So I'm going to have to get that document to you later.

But in addition, we've obtained some documents under the Freedom of Information Act that illustrate insufficient radiation monitoring practices for site remediation workers after 1988. So, I'd like to talk

about both of those things today.

But first I'm concerned that NIOSH's limited scope of this SEC has diverted attention away from important key points that supported the original Class. Which was written to include all workers, 1955 to the present, regardless of administrative affiliation or time clock location.

The original Class Definition was based on evidence that NIOSH has already confirmed. For example, we cannot determine worker access to Area IV, we cannot track worker rotation between areas of Santa Susana or between Santa Susana, Canoga, and De Soto.

We've established that job titles are inconsistent with job duties and work locations, which prevents relevant exposure scenarios from being developed. The Site Profile remains totally defective and cannot be used in dose reconstruction.

And it certainly should not be used to develop new models for current site remediation workers who risk americium and thorium exposure at those 50 locations that are still missing from the Site Profile. Along with all of their corresponding environmental data for these locations.

And it's my understanding that the Site Profile does not reference transuranic waste combustion practices, which is a process that began at the site in 1974. And documentation suggests that it continued until 1998.

There are established Department of Energy facilities that were located in Area I. These were acknowledged by SC&A and NIOSH and have been completely ignored by the Department of Labor, although they have been give copies of the contracts for these locations.

But the workers who participated in these DOE operations are similarly disqualified from the program.

SC&A has already acknowledged that there were americium separation processes at the site until 1993. In their own document.

And NIOSH has already acknowledged DAC emissions data in 1995 that were positive for americium and thorium, which suggests an operational use for those materials.

And then moving into today, the situation that workers are facing right now is that Boeing is systematically withholding all employment records.

This is preventing workers from establishing that they were ever even onsite. We are all familiar with the detailed and extensive nature of Boeing's employment databases. And clearly this is obstruction.

Personnel, medical and radiation records are incomplete. They cannot be obtained. They can't be used to identify job duties, work locations, or exposure. So, we can't tell where these workers were. We can't reliably rule out their access to Area IV.

So, NIOSH was presented with this SEC and supportive documentation that was relevant to the original Class Definition. But rather than focus on the issues that were raised, which are clearly relevant because we just heard about some of those same issues at West Valley, they limited the scope of this petition to 1991 to '93 and the deeds of a past contractor.

And we've just been talking about whole body count data, but I've already supplied the documentation showing that they didn't report whole body counting from Helgeson.

So, cutting to the chase here, I'm grateful that the Advisory Board has recognized the need to learn more about americium and thorium at the site after 1988. And I think that the information that we've located establishes operations to at least 2008,

potentially 2010, along with the new evidence that suggest site remediation workers were, and currently are, insufficiently monitored.

So, the documentation that I'll be submitting today is a Boeing technical progress report that details TRUMP-S operations Area IV from 1993 until 1998. And apparently what it looks like is that after the public scrutiny died down and things weren't so heated, they brought the program back. That document provides a DOE contract number. And indicates that Boeing participated in Steps 4, 5 and 6 of the TRUMP-S transuranic separation processes. Which involve the reductive extraction and removal of metals from the molten salt phase of the process, the reductive extraction to remove actinides and rare earths from the active metals, followed by electro-refining, and the reductive extraction followed by electrode disposition to separate remaining transuranics from rare earths. So it doesn't look like their activities were just confined to non-radioactive processes.

We'll also be submitting several accepted -- acceptable knowledge summaries that describe transuranic waste generation and processes between 2002 to 2008, and the storage of transuranics for up to 20 years, prior to the repacking operations that happened at Area IV. Which constituted an entire program that they started to deal with the site closure demands.

While the waste was sitting at Santa Susana during waste shipping moratoriums, the plutonium content was quickly decaying to rising levels of americium. And that's expressed in this report.

We have a 2003 photograph of large transuranic cask in the site closure team at the Area IV radioactive materials handling facility and a 2003 employment performance development summary which acknowledges workers participation in waste management and repacking processes.

So those documents will be supplied to the Work

Group, NIOSH, and SC&A. And that shows the presence of americium and thorium onsite well into the 2000s. And processes that involve those materials.

And then just to touch on the site remediation workers, under the FOIA we obtained several of the requests from Boeing to be exempted from Department of Energy's requirements to monitor site remediation workers.

Those are dated between 1991 into the 2000s. So they coincide with the site remediation processes and the transuranic work that we're talking about.

The Department of Energy expected compliance from the contractor, but they gave Boeing a loophole to exemption by basically letting them know, if an employee is affiliated with a non-radiological location, like Area I, II or III, or has a job title that is inconsistent with radiation work, then that employee is not required to be monitored.

Site remediation subcontractor employees are currently administratively affiliated with an Area II dispatch location. They're routinely performing Area IV site remediation duties at radiological locations where historically radiation monitoring was required.

They are not currently being monitored for radiation. But the waste that is being generated from their activities, is surveyed for radioactivity.

DOE and Boeing have abandoned these subcontractor employees. They refuse to acknowledge that this subcontractor is even present at the work site. And these workers are summarily disqualified from EEOICPA today.

Even when they submit photos showing that they're performing site remediation at Area IV radiological locations. One of them was transitioned to subcontractor status, sent in to Area II to be administratively affiliated with that. And his radiation protection ended within a few weeks of filing his initial

EEOICPA claim.

Right now today, while we're having this meeting, he's doing site remediation at Area IV.

In conclusion, we believe that the new documentation shows that americium and thorium were used in an operational capacity to at least 2008. And that this information even more firmly supports the original Class Definition that was intended to acknowledge all Department of Energy contractor and subcontractor employees at the site, based on issues that have already been verified.

As always, it's a privilege to represent the workers and address the Board. Thank you.

Mr. Katz: Thanks, D'Lanie. I'm going to make, do I have mic power here? I'm going to make a suggestion here because it's a process issue.

On our SEC petitions, we address SEC petitions based on current information. And we do the best we can with our current information. We've had this petition on the agenda multiple times at this point with a promise of information that hasn't borne out to be what we thought it would be. And you are now indicating that you have new information for us to consider. And new information is great, but new information is normally the basis for a new petition.

Ms. Blaze: Would that be Bob Barton's new information that he quoted from technical progress reports or my new information?

Mr. Katz: It would be new information presented to NIOSH and the Board, at the point that it's doing its work. And we didn't even have a day to look at anything. We are being promised information now we haven't seen. That's new information as far as the Board is concerned.

And I would just, my opinion on this is that this is appropriate for reopening, for establishing a new petition but is not appropriate, really, for the Board

to be making, putting this off for another meeting. We have a lot, the Board has a lot of work to do on a lot of petitions and --

Ms. Blaze: I understand.

Mr. Katz: -- holding this as an agenda item, again, and re-raising it, say, in December, which is our next meeting, means that something else doesn't have room perhaps or what have you. So, I mean, that's my strong suggestion. The Board can decide how it will.s

Ms. Blaze: I have a question, Ted?

Mr. Katz: Yes.

Ms. Blaze: If the original Class Definition is defined clearly and submitted with supportive documentation, can the Board recommend that NIOSH adhere to the original Class Definition?

Mr. Katz: No. The Class Definition is a work in progress. I mean, that's just the way it has been for every single petition we've dealt with for now going on almost 20 years. Petitioners are in the position of proposing a class definition, but it's really up to NIOSH. And then there's involvement of the Board, when there needs to be, on working out what the proper end class definition is --

Ms. Blaze: Yes.

Mr. Katz: -- that has gone on. So, again, in my view, this new information is fine and good, and we'll welcome new information, but it really ought to be a new petition, not this petition which we've struggled through --

Ms. Blaze: That happens when it gets --

Mr. Katz: -- and investigated pretty deeply.

Ms. Blaze: -- kicked down the road and the Class Definition is changed. I totally understand. I'm prepared to resubmit.

Mr. Katz: Okay.

Ms. Blaze: Does anyone else have any questions for me?

Mr. Katz: Yes, let's go to questions for D'Lanie. In the room or on the line?

(Off microphone comments.)

Member Beach: D'Lanie, can you just tell me again what years it covers?

Member Anderson: I would say, I thought the presentation was very helpful and it did close the loop on some of the issues that we had raised at the last Board meeting. So, be interested in, I mean, we tabled the previous recommendation from our group and I would assume that that recommendation is still open. And given your current comment, that the new data presented, that it's probably best used as a new proposal.

I'm not sure, I'd be interested in hearing from the other Members of the committee and the Board after we want to keep the current one open and look for continuing review of new information or should we close that part of it out and then we can more, in a more focused fashion, address new information through the process.

Ms. Blaze: Josie --

Mr. Katz: And that's Dr. Anderson by the way. Just for the record.

Ms. Blaze: -- 1993 to 2008. Some of that is not new information, it came from SC&A's review of the internal co-worker dosimetry data in 2014.

(Off microphone comments.)

Ms. Blaze: Yes.

Member Schofield: One quick question for you. You indicated that there was data showing that they did

do the prior separations. What was the dates for that?

Ms. Blaze: That document talks about the processes, 1993 to 1998. It's a technical progress report. Similar to what Bob Barton quoted from.

Mr. Katz: Do I have other comments or questions from Board Members? David.

Member Richardson: I was struck at the meeting, which I believe was in Pittsburgh in April. We were presented with three pieces of evidence regarding the activities at the site during this period.

And at that point I found it, I mean, I'll say frankly, I found it shockingly insufficient. There were two unattributed quotes, if I'm going back to this, two experts who were unnamed but spoke in their opinion about the activities.

There were ten incident reports. One of which had a positive finding and the others were inconclusive.

And my recollection in the past, we have not drawn heavily upon incident reports as the basis for understanding the nature of activities. And then there was general air sampling results, which would be in the hierarchy of information, some of the weakest type.

Because it would depend upon where the sampling occurred and what. And we were, I believe we were presented with mean results of general air sampling. And that was the scope of the evidence that was raised.

And then petitioner came forward with what I would say calling, in some cases, anecdotal or reference to reports of information about specific activities. And now today we have a rebuttal about what the petitioner has put forward, but I am still left with these pieces of information. Two unattributed quotes, some incident reports and general air sampling as sort of the basis of forming a conclusion about the

nature of the activities that happen. And possible references, still to kind of a lack of clear understanding of what the nature of the activities was over this period of time. So I don't feel like the ball has moved very far.

Mr. Katz: Let me, to suggest a couple of those points that you made, which I think need a little bit of editorial work.

The unattributed I think is a little bit unfair. It's we protect people's privacy. These aren't unattributed discussions, they're not, they're attributed but we don't release their names to the public --

Member Richardson: I --

Mr. Katz: -- this is the normal course. And it's workers who were there, who we normally respect their information as experts.

Member Richardson: I'm not saying that, but again, I have, I'm not disrespecting them but I'm saying, to understand the nature of the process, I don't believe we were characterized kind of, is this management speaking, were the people there during the periods. Maybe we had some of that addressed but, again, that's --

Mr. Katz: Right.

Member Richardson: -- not to say, but I'm saying in the hierarchy of types of information, which we would like to see as a characterization of the process, and I don't want to get into a debate with you, Ted --

Mr. Katz: No, I --

Member Richardson: -- about the nature of this, but I'm describing the situation of my level of comfort in April.

And there's been a sort of a response to the, some investigation of the activity in one building, but I don't feel like it's substantially changed --

Mr. Katz: Right.

Member Richardson: -- the presentation of a coherent report about what happened.

Mr. Katz: And the other --

Member Richardson: And you're asking this sort of procedurally. Like, okay, it's enough, we've had this discussion, let's just make a decision.

Mr. Katz: Well, it's, current information is how we do operate.

Member Richardson: I'm not talking about --

Mr. Katz: So that --

Member Richardson: -- in Pittsburgh I felt like the current information was insufficient. And I still feel like I don't know. I haven't learned that much.

Mr. Katz: And the other thing that, the mean information, it was not only mean, I believe it was the mean, like 95 percent or, it was a mean high value. But someone from the program can speak to that, as to what those values were. Tim or Lara can --

Mr. Barton: Yes, this Bob Barton. Yes, I put that together based on what data we had for air sampling at the time. But I'd like to say that that is not, it wasn't necessarily meant to -- basically it was a way to compare the operational period to this residual period where we don't have appropriate or acceptable bioassay data. And we pointed out a number of valid concerns and limitations with that analysis. But again, it was supposed to be sort of weight of evidence argument.

And I believe those numbers were, in some cases, three orders of magnitude lower during the remediation period then what was done during the operational period. Which is being proposed as a sort of surrogate, (I know that's a loaded word for this program,) but using that operational co-worker data

to apply to remediation workers. That was really the purpose of that comparison.

And yes, it was looking at the high end assays, looking at the average of the maxes. And there might have been an average of the averages in there.

Again, we were working with what information that we have. Whether that information was obviously a question for you all.

Ms. Blaze: May I respond?

Mr. Katz: Well, I mean, really, this isn't the time for, this is the experts talking. But, Tim, did you have something to add?

Dr. Taulbee: Just to follow on what Bob was saying. I mean, he's exactly right, the purpose of those air sample data was just to compare the operational to the remediation time period. So, if you're looking for a more detailed analysis of that because you're uncomfortable with the situation from that standpoint, then perhaps something can be done along those lines. But it was just a look to see, hey, does this bioassay that we have in the remediation time period after the CEP data from '91 to '93, does it match or was there a huge spike in air sample data during that time period, and there wasn't. That's observable. So if you're looking for something more robust, that could possibly be arranged. But I really don't think that that's necessary at this point. From what we saw and Bob's analysis is demonstrating, there is nothing indicating that there would be any reason to invalidate a co-worker model in that time period.

(Off microphone comments.)

Mr. Katz: Phil.

Member Schofield: There is not --

Mr. Katz: Phil, talk in your mic please.

Member Schofield: Okay.

Mr. Katz: Thanks.

Member Schofield: I've got a quick comment to make is, this would be if the data she is quoting is correct, that they did some of this work after '93. Pyroseparation done with light elements, you would be concentrating the americium. And you now also have the light elements, you have the americium, the plutonium in there. So now you all have a higher rate of gamma exposure and a higher rate of neutron exposure due to the alpha reactions.

Dr. Taulbee: Right. But if I can bring you back to what Ted was saying earlier, the new information, if it was filed as a new petition, we would certainly evaluate all of that information.

In this particular evaluation, we qualified the petition because we knew that CEP was providing the bioassay between '91 and '93. And that was what we were looking at for this particular petition.

Now, I understand that the petitioner filed for a longer time period, but in our qualification process, we looked at that time period because we knew there was a potential issue there. If there's new information that comes in under a new petition, we will look at all of that new information.

Mr. Katz: Brad.

Member Clawson: Well, I just, I'm going to tell you one thing right now. You know that this will just be a Bradism. Santa Susana is a total mess.

How come is it that it's a DOE contract and the information is held by Boeing and we don't really even know what we've even got there?

Now, as far as giving the petitioner the opportunity, I think I've been spending eight or nine years of, yes, we just found 300 more boxes here, yes, we just found that. And we have given NIOSH the opportunity, I think, that we ought to give the petitioner the same thing.

I understand that there comes a time when it comes, but Santa Susana, out of all of the sites that I have dealt with is the biggest mess I have ever seen in all the sites.

Member Anderson: Hello.

Mr. Katz: Go ahead. Is that Andy? So, do I have a Board member on the phone who has any more comments or questions?

Alright. Do I have a Board member in the room with any more comments or questions?

So, we have a motion, it's still on the table. It was resurrected at the beginning of this session to concur with NIOSH. And it sounds like we don't have any more discussion at this point or a proposed path forward or a proposal to re-table it. Paul, do I? Where do you want it?

Member Ziemer: I just wondered, we took the motion off the table before and we brought it back. You need to remind us what the motion is?

Mr. Katz: So --

Member Ziemer: It's not been expressed today.

Mr. Katz: Okay. So, let me remind you what the motion is. One second. It's, in affect it's to agree with NIOSH but let me read it to you.

Okay. Well, I mean, the motion is that NIOSH has concluded that all employees of the DOE, its predecessor agencies and its contractors and subcontractors who worked at Area IV of the Santa Susana Field Laboratory in Ventura County, California, during the period from August 1, 1991 through June 30th of 1993, for that Class, NIOSH found it has access in affect.

And I'm just going to -- it's a long discussion for which you would have to approve the specifics, but NIOSH has found that it has adequate information for dose reconstruction, that is the summary of it.

And that's what you would be voting on. That NIOSH can do dose reconstruction for this three year period. That is what you would be considering.

Member Anderson: And it's part of the residual period, right?

Mr. Katz: Well, I don't know how residual is defined at this site because this is not an AWE. Go ahead, Lara.

Dr. Hughes: No, it's a DOE facility and it's called remediation period.

Mr. Katz: Yes, remediation, sorry. Thank you, Lara. Remediation period. So, similar in effect, I guess.

Dr. Taulbee: Yes.

Member Anderson: Ted, what were the dates again?

Mr. Katz: I'm sorry. The dates are from August 1st, 1991 through June 30th, 1993. So it's really a couple of years, a little less.

Member Richardson: So, Ted, you've put forward one motion, procedurally, can a counter motion be put forward?

Mr. Katz: A counter motion? Well, we can --

Member Richardson: How would one, if one were to propose to table the motion again?

Mr. Katz: Tabling it, we can propose to table the motion, but then you need also the proposed path forward. But go ahead, Paul? Were you going to add more to that, what I just said?

Member Ziemer: No. You can table a motion at any time, I'm not sure what you mean by a counter motion. But --

Member Richardson: Well, I just, it was a proposal to, I mean, another option is to consider this and I was tabling it.

Member Ziemer: A motion on the floor can be amended, if that's what you're asking. If it's a counter motion, that becomes a different motion and it wouldn't --

Member Richardson: Okay. And tabling is not a motion, tabling is just --

Mr. Katz: Tabling is to put it back on the table.

Member Ziemer: Tabling takes preference.

Member Richardson: Yes.

Mr. Katz: Yes.

(Off microphone comment.)

Member Beach: In essence, what we did last meeting.

Mr. Katz: Exactly.

Member Beach: Which I'm in favor of.

Member Ziemer: I didn't hear what she --

Mr. Katz: She's in favor of tabling it.

Member Ziemer: Now, motions to table are not debatable.

Mr. Katz: Right.

Member Ziemer: So, you can't speak to whether you're for it or against it, you just have to act.

Mr. Katz: Okay. So then I need a vote for whether we table this or not. So I'll run down the list --

Member Ziemer: And I'll add one other thing.

Mr. Katz: Oh, I'm sorry. Thank you.

Member Ziemer: You can include in the motion to table a time to remove it or you can just table it and remove it later at your leisure as it were.

Mr. Katz: But also, be thinking about what your path forward is if we do table it because if we don't have a path forward and we're tabling it, we're not doing justice to procedure at all here.

So, Anderson?

Member Anderson: No.

Mr. Katz: Beach?

Member Beach: Yes.

Mr. Katz: Clawson?

Member Clawson: Yes.

Mr. Katz: Field?

Member Field: No.

Mr. Katz: Kotelchuck?

Member Kotelchuck: Yes.

Mr. Katz: Lockey?

Member Lockey: No.

Mr. Katz: Richardson?

Member Richardson: Yes.

Mr. Katz: Roessler? Gen Roessler?

Member Roessler: Okay, this is Gene. No.

Mr. Katz: Yes. No. Schofield?

Member Schofield: Yes.

Mr. Katz: Valerio?

Member Valerio: Yes.

Mr. Katz: And Ziemer?

Member Ziemer: Yes.

Mr. Katz: Okay. The motion passes. So it's tabled. Now that it's tabled, I need a discussion about what is the path forward because we need one.

Member Schofield: One thing is, we need a chance for NIOSH to look -- and the Work Group to look at some of the new data that has been brought forward to this meeting. I mean, at least the wording of it. We need to actually look at some of those documents.

Mr. Katz: So, go ahead, before we --

Dr. Taulbee: I have a procedural question, I guess, for Ted then.

Mr. Katz: Yes.

Dr. Taulbee: Because the qualification period for this was 1991 to 1993. Information that comes from the outside of that time period is, I mean, do we expand that time period within this petition?

Participant: We can't hear on the phone.

Mr. Katz: So, Tim is just asking, it's an understandable question. The period for which this petition was qualified was '91 to '93. So, new information about years outside that he's saying, what do we do with it? With respect to this petition.

And I guess my question back to you is, and maybe it's Grady, but I believe the program, and maybe it's our lawyers if not, but I believe the program has some flexibility, if there is new information, with respect to Definition of the Class, whether you can go back and redefine the Class being considered at some point or not. I don't know, we haven't really had this experience before.

Mr. Rutherford: Actually, we've expanded Classes beyond qualification date if we determined there's an infeasibility --

Mr. Katz: Right.

Mr. Rutherford: -- that expands the class.

Mr. Katz: Right.

Mr. Rutherford: If we look at this new information and we recognize that maybe the end of the qualified period should actually be included, then we would have to come up with a new date. And so, we would look at that new date.

Mr. Katz: Right. Okay.

Mr. Rutherford: So, I think that's fine.

Mr. Katz: So I guess that's my question was, do we have the flexibility, and we do. So then that's okay. I think we're okay there. Paul.

Member Ziemer: Let me add to that if I might. At the point at which this is brought back from the table, you would be addressing the original motion. At which point it could be amended.

Mr. Katz: Right. Right. Thank you, Paul.

So, anyway, we have that clarification. And I heard mentioned, I don't remember who said it, but about NIOSH evaluating the new information.

And I would just, of course, note that I think SC&A and NIOSH will look at that at the same time for efficiency purposes so that we have all eyes on this new information and get it done as quickly as we can.

Is there anything else anyone wants done, beyond evaluating this new information, to satisfy concerns? And I am pointedly asking David Richardson because he's the one who has some concerns that may be outside of that scope.

Member Richardson: I attempted to make notes during the petitioner's comments. It seemed to me that there were two categories of comments.

There were comments which were, I mean, here I am following our training from this morning on ethics

training. Issues that were specific, and there were issues which were general.

The specific ones concerned americium and thorium activities, continuing through into more recent periods. The general ones concerned, for example, drawing the parallel to this morning's discussions, the difficulty of obtaining any sorts of records which are going to establish that the worker was onsite or involved in these activities. I mean, those, there were concerns about sufficiency of the Site Profile, job titles. There were a number of issues raised.

And we can either propose a path forward, which is extremely narrow, or we can at least, in some way, we responsive to the enumeration of some broader concerns, which I believe are being raised because of the difficulty perhaps, with a narrowed definition.

Mr. Katz: Well, I believe those, actually, those issues have been addressed before on multiple occasions. But certainly we can be certain that those are addressed or have been addressed. I know that DOL matters have been addressed on multiple occasions, and that's a general issue, but it's not a general issue for us. So I understand that one.

But anyway, we can go through the transcript and see those issues and see whether they've been addressed before and if they haven't and there is something novel about it, we can, absolutely. That's another thing that can be prepared is to suggest specifically a response to the comment, whatever that might be, that general comment. Thank you.

Alright. Alright, so, we have someone on the line that is not muted by the way and is struggling with their phone or something. Can people on the phone press *6 to mute your phone? I don't think the person can hear me.

How are we doing on time here? We're right on schedule. So we have a little, we're a little bit over schedule, but we have a SEC petition status update for LaVon.

Member Anderson: Ted, we don't hear anything now?

Mr. Katz: Yes, no one is speaking, that's why.

Member Anderson: Okay.

Mr. Katz: Yes, Bomber -- LaVon, is just getting ready.

SEC Petitions Status Update, by Mr. LaVon Rutherford, NIOSH

Mr. Rutherford: Alright, I'm LaVon Rutherford, I'm the Special Exposure Cohort health physics team leader for NIOSH and I'm going to give the SEC update. We give this update at every Advisory Board meeting. It gives the Advisory Board indicates of petitions and qualification under evaluation currently under Board review and potential 83.14's we may be working on.

A little summary. Believe it or not, we're up to 253 petitions. It's a little bit more than then 20 Jim Neton anticipated when we first --

Member Anderson: Can't hear you.

Mr. Rutherford: Okay, is that a little better?

Member Anderson: Yes.

Mr. Rutherford: Okay, we're up to 253 petitions. We have one petition in the qualification process, one petition in the evaluation process and 12 petitions with the Advisory Board.

Our one petition that's in the qualification is the reduction pilot plan. This is petition for 1976 to 1978. It's at Huntington, West Virginia. And it's for all security guards. Currently that petition is on hold. We have sent some information that was provided with the petition, and some information that we had uncovered ourselves to the Department of Labor, for them to evaluate the covered period. We believe that, well, if the covered period is not extended, this petition is likely not to qualify.

Alright, petitions under evaluation, we have Lawrence Livermore National Lab. This is actually a continuation of an existing petition. It addresses the remaining years of 1990 to 2014. And we do expect to have that addendum complete in February of next year.

Y-12 Plant, 1977 to 1994. That petition evaluation is complete and will be presented by Dr. Hughes shortly.

West Valley Demonstration Project, we presented that one earlier. We got some additional work to do but the Board did concur with our recommendation for that addition of the Class.

Okay, these are petitions that have evaluation periods still under review. Hanford SEC-57.

We have been reviewing, NIOSH has been reviewing documentation to determine whether prime contractors, Radiological Control Programs, were meeting internal monitoring requirements. We anticipate having the, our answers to the Work Group in November of this year.

Savannah River Site. Savannah River Site, the Work Group, and SC&A are reviewing our co-worker models and our subcontractor monitoring.

Los Alamos National Lab, we have two big issues we are working on at the Work Group meeting in July. We presented a proposed path forward and a schedule for completing that. So we're working those issues.

Sandia National Lab, we presented an addendum, that that addendum is being reviewed by the Work Group and SC&A.

Idaho National Lab, NIOSH is working to resolve issues raised by SC&A and the Work Group. Same thing with Argonne National Lab West.

Area IV, Santa Susana, sounds like we have a little

additional work to do after today's meeting. And we'll get together that information and put together a schedule and make sure the Work Group is aware of it.

Metals and Controls, the Advisory Board Work Group and SC&A are reviewing a couple White Papers.

De Soto Avenue Facility, NIOSH is working to resolve issues raised by SC&A in the Work Group. And there are some, NIOSH has been working with SC&A on some additional interviews that were conducted.

Superior Steel Company. Again, we are working to resolve issues raised by SC&A and the Work Group.

So, these are those same years. These are the years, I mean, these are the same petitions in the remaining years that are still to be addressed by those petitions. I'm not going to go through each one of them.

Okay, potential 83.14s, as we had that discussion this morning with West Valley. We are continuing to evaluate the 1966 to '68 period. If we determine the data does not support a feasible dose reconstruction we will move forward with an 83.14 to cover that period.

And that's all I got. Questions? Questions?

Mr. Katz: No questions? No questions on the line either, right?

Member Richardson: Can I --

Mr. Katz: Oh.

Member Richardson: -- just ask for a clarification quickly?

Mr. Katz: Sure.

Member Richardson: The only thing that I flagged and I just, I mean, I'm sure we'll hear more about it, the "Hanford reviewing documentation to determine whether prime contractors, radiological control

programs were meeting internal monitoring requirements," could you just clarify what that means?

Mr. Rutherford: Yes. At that time period we added a Class 1983 to 1990 at Hanford. And it was because we noticed that some subcontractor monitoring programs, at that time period, Hanford was broken up into, each of the contractors were responsible for their own monitoring program.

So they were responsible for implementing the actual internal monitoring requirements. Well, as you can expect, that didn't work out very well.

So the subcontractors, we added a Class, because we recognized the subcontractors were not doing, we had documentation that supported that. But the question came up, okay, do we really feel good about all of the prime contractors because there wasn't just one prime contractor at the time.

So we had been continuing that evaluation. We're working a closure. We should have that report to the Work Group by November of this year.

Board Work Session

Mr. Katz: Any other questions? Alright, we are off now to -- we're not off, we're on to the Board work session. And as Bomber promised, right on time. LaVon, thank you.

Member Beach: Ted, before you get started, can I ask about the October Board call on -- scheduled for the 16th?

Mr. Katz: Yes. What's the question?

Member Beach: Is it possible to move that a day later? Or is it set in stone?

Mr. Katz: We can try to do that here.

Member Beach: Right now it's set for the 16th.

Mr. Katz: So, yes, it may be possible. People will have to pull up their calendars, and we can do that first actually, why not.

Member Clawson: It's all about Josie.

Member Beach: Why not.

Mr. Katz: So right now, let me just find my dates.

Member Richardson: Right now it's proposed for the Wednesday, the 16th of October--

Mr. Katz: Exactly.

Member Richardson: -- and the proposal was to shift it to Tuesday the 15th of October.

Member Beach: 15th or the 17th. No, the 17th, sorry.

Member Richardson: Oh, the 17th.

Member Beach: A day later, yes.

Mr. Katz: Oh, she's very specific. So the 17th. How is the 17th for people on their calendars? And on the line, Board Members too.

Member Anderson: Just a second, Ted, I have to look.

Mr. Katz: Sure, sure. No rush.

Member Anderson: I have a lecture that day.

Mr. Katz: Okay, so that's --

Member Anderson: I can try to move it.

Mr. Katz: Did you say something about moving your lecture or no?

Member Anderson: I mean, I can do it, but I have a -- Thursday is a course that I lecture in.

Mr. Katz: Okay.

Member Anderson: What time, my lecture is at 1:00 in the afternoon. So if we met in the morning it would

be okay.

Mr. Katz: Oh, we'll be finished. I mean, generally speaking these have gone well less than an hour. So I think you should be okay.

Member Anderson: Oh.

Mr. Katz: Any other Members have a problem with changing it to the 17th?

Member Lockey: This is Jim Lockey. Either way, I'm not going to be in town so it doesn't make any difference for me.

Mr. Katz: Okay. Okay, we'll miss you either way, Jim. All okay? Okay. So --

Member Anderson: So, what time would it start?

Mr. Katz: So, October 17 at 11:00 a.m. Eastern time.

Member Anderson: Okay.

Mr. Katz: So, Eastern time involves you too, Andy.

Member Anderson: 10 o'clock my time.

Mr. Katz: Yes, exactly.

Member Anderson: Got it.

Member Beach: Thank you.

Participant: Sure.

Mr. Katz: Okay, you owe all of us, Josie.

Member Beach: I do. I'll pay up somehow.

Mr. Katz: A pound of flesh, pound of flesh.

Okay, now, as long as we're in scheduling mode, everyone has their calendars, let's go on with some more scheduling. The next teleconference, so let me, just to bring you all up to date, because I know you often like to know what comes after anyway, we have a December Board meeting, provisionally the 11th

and 12th, whether we have enough material for that is at question.

But this December 11 and 12. And we will be sorting out the location for that shortly. After we do the scheduling.

Then we have a February 19th teleconference. February 19th. And then we have an April 22nd and 23rd full Board meeting.

So that brings you up to what we've scheduled already. And moving from there, we need a teleconference around the week of June 22nd.

So, I usually, I'm hoping the 22nd is a Monday, so we're talking about that week.

Member Beach: Can you tell us the April dates again, I thought I had it but --

Mr. Katz: The April date is 22nd to the 23rd.

Member Beach: Thank you.

Mr. Katz: Yes. Okay, so then --

(Off microphone comments.)

Mr. Katz: Okay.

Member Anderson: Ted, you're into June, right?

Mr. Katz: Let me move on with this. I'll get to those dates. But anyway, so, teleconference the week of June 22nd, that's a Monday I believe. If that's a Monday, then the 24th is our standard thing, but we can do other days.

Anybody have a problem with June 24th?

Member Beach: No.

Member Lockey: Jim Lockey, that's good.

Member Beach: Good.

Mr. Katz: David, is that okay with you? Kotelchuck.

Member Kotelchuck: It is.

Member Anderson: April 22 and 23?

Mr. Katz: So --

Member Beach: Yes.

Mr. Katz: Yes, there's a April --

Member Beach: Sorry. Sorry, Ted.

Mr. Katz: Yes, that's okay.

Member Anderson: Oh. So, April 22, 23 full Board meeting. And now we're setting a June --

Member Anderson: Yes, I got it.

Mr. Katz: -- a June 24th teleconference. 11:00 a.m. Eastern time. Okay? That sounds good then.

And then for a meeting around the week of August 24th.

Member Anderson: The week of the 24th is okay for me. Which days?

Mr. Katz: So, the preference would be the 26th and 27th. The middle of the week.

Member Anderson: Okay.

Member Lockey: It's good for me.

Mr. Katz: August 2020, 26th and 27th.

Okay, I'm not hearing anyone on the line having trouble with those dates?

Member Roessler: Okay.

Mr. Katz: Okay, so August 26th --

Member Lockey: Jim Lockey, good for me.

Mr. Katz: Super. August 26th through 27th. Alright, that settles dates. Schedules us out for a year. Where we like to be.

And now let's talk about locations for December. And again, I don't know whether this is two days or one day, but right now, given all that has happened before, we can bring things to the Board. It's looking pretty skimpy for December I would say.

But let me find my notes to get you started. Okay, so, for December. So, I'm going to start with the one that seems most intriguing to me and practical.

The Lawrence Berkeley National Lab Work Group has been working on its review, the Site Profile. And there are a lot of matters that they have dug into and some that are getting responded to.

There is work that hasn't come out yet from NIOSH about dealing with air monitoring there. And it sounds like it would be not bad timing to sort of go with that report to be able to possibly get more information locally about matters related to that as to how that data could be used and so on.

So, that is sort of the argument for doing, having an Oakland trip for December. To help out with that Site Profile review.

And I think I would ask then, certainly that we do a job of reaching out to people at the site so we can hopefully generate some information from them during that meeting.

Member Anderson: Where is that?

Mr. Katz: So, if that, Lawrence Berkeley, that would be, we've, I think, almost every time in Oakland for that. That's pretty easy. It's a pretty easy setup for us.

Member Anderson: Yes.

Mr. Katz: So, other possibilities that I went through before. Hanford still has open SEC issues, so that's

another possibility. We'll talking about December, but I don't think Hanford is that frightening winter location for, not like Idaho.

Member Beach: It varies.

Mr. Katz: It varies.

(Laughter.)

Mr. Katz: So, Hanford is another possibility. And I don't know, Joe, I don't know how ripe that might be but --

Mr. Rutherford: It's actually NIOSH.

Mr. Katz: Ah, okay.

Mr. Rutherford: As I mentioned, Ted, we're on schedule to provide a document to the Work Group in November that should address the remaining issues. How those are accepted by the Work Group, I don't know.

Mr. Katz: Of course. Okay. So, now you know as much as can be known about that. Okay.

SRS. SRS will not be ready for December. It's become pretty clear. There is going to be a mountain of work to do by the Work Group. And that's going to be coming pretty late this fall. Which means bringing it to the Board lickety split like that is just not likely to happen. So, what I am hoping for is that this late fall we have a, probably a couple-day work group meeting in Cincinnati with as many Board Members as we can get there.

We don't, we're not talking about just the SRS Work Group, that and the SEC Issues Work Group, which has sort of owned some of the matters with co-worker modeling, but having a couple day meeting late fall.

So, I don't think that's ready for, definitely it's not going to be ready for Board action. The one possibility is if you want to give a major update to the SRS

community about what's going on, because at that point you have a lot of material on your plate, that would be an option. That would be a reason why you would go to Augusta then.

So that was another thought. INL, I was thinking, it was suggested that this summer might be a good time to go to INL, because the burial ground material will be ready then for discussion. And mixed fission produce and various reactor should have been discussed by the Work Group by then, so that might be nice timing for INL.

We love it there. we miss it Brad, by all means.

Member Clawson: You know, you guys won't melt if you get a little snow on you. It's all good.

Mr. Katz: I know it's possible.

Member Beach: It's not the melting, it's the driving.

Mr. Katz: No, that's possible.

Member Beach: It's the driving, not the melting.

Mr. Katz: Okay. And the last place that I gave thought to also was De Soto, because at that I don't, timing I'm not sure whether that's ready for December. The question is though, I mean, really, if it was it would just be there for relevance because at this point it wouldn't be a public input opportunity, we would have done most of all the work at that point.

So those are all the options I considered. Paul, you are the Lawrence Berkeley Chair so I don't know if you have thoughts about, about doing this in Oakland?

Member Ziemer: Well, I think it would be good, it wouldn't be, mainly focused on presenting what we have and what's still needed. I don't see it being one where we would take any actions, in terms of votes, at that point.

Mr. Katz: Right.

Member Ziemer: There is still much to do.

Mr. Katz: Absolutely.

Member Ziemer: Yes.

Mr. Katz: There is no question the Site Profile review wouldn't be done. In fact, the point would be to be able to collect some more information.

Member Ziemer: Collect more information and perhaps give the Board an update on what we've done so far in terms of closing out some parts of the Site Profile.

Mr. Katz: Got it. David.

Member Richardson: And would there be an option for a site visit at that time?

Member Ziemer: I think that would be great if we could arrange it.

Mr. Katz: We can try to arrange that. I know that we have plenty of time out to do that, so, yes. People interested in a site visit?

Member Clawson: Yes.

Member Beach: Yes.

Member Ziemer: Yes. Dr. Hughes was the person on that, but I think Megan has taken that over, but maybe she can arrange something.

Mr. Katz: Okay. Okay. So we'll, that would be another reason, I guess, to go to Oakland. But let me hear if Board Members have any other thoughts or different preferences, by all means, let me know.

Member Beach: I would have said Metals and Controls, but --

Member Anderson: I like Oakland.

Member Beach: -- it's clear we're not going to be ready now with that setback.

Mr. Katz: Okay. So, yes. Yes, Metals and Controls is going to be a little longer. Unfortunately, the work will be done, a lot of the work will be done, but we just have scheduling issues with pulling together all the Board Members and staff members that have to be together to work out the remaining issues.

And I heard Andy say he loves Oakland. Any others? Any other thoughts? Going, going, gone.

Alright. So that's December, Oakland. And is 20th, 21st. Depending on how much we have for the Board meeting itself, we could use those two days, one of those days, for a site visit.

(Off record comments.)

Mr. Katz: Andy already said he's good.

Member Anderson: Yes.

Mr. Katz: Yes, I hear someone very faintly. Is someone trying to speak to us? No. Okay.

Alright. Whatever, I think I messed it up. 11th and 12th, sorry.

Member Kotelchuck: Which is a Monday, Tuesday, right?

Member Anderson: Go ahead.

Mr. Katz: No, that should be the middle of the week.

Member Beach: Wednesday, Thursday.

Mr. Katz: Right. So we'll try to keep to those two days for your calendars, but working with the site about a visit is another matter. So, December 11, 12. So, just consider on your calendars a day before and day after, possibly, for the site visit.

And it would be great to hear from all Board Members. Just send me an email if you think at this

point you'd like to be part of that site visit so I have a headcount. Alright? Okay, super.

Alright, let's go to, I know David Kotelchuck has a pressing flight he needs to catch. So let's get to our, I'll get to comments afterwards.

Let's go to, right to the Work Group and Subcommittee reports. And then I'll do comments last, but that's fine.

Member Kotelchuck: Okay.

Mr. Katz: Go ahead --

Member Kotelchuck: Okay.

Mr. Katz: -- David. And Dave would like to go first. Please.

Member Kotelchuck: The Dose Reconstruction Reviews Subcommittee. I think basically the Subcommittee, things are moving along fine and we're meeting on September 12th.

The one major piece of information is that now that the surrogate Work Group has met, we have resolved the last piece of data or we're at the -- we've resolved the last issue for the Secretary's Report. That that has been awaited the surrogate meeting. So, I expect to have that finished --

Member Anderson: If you could mail me something --

Member Kotelchuck: Okay.

Member Anderson: -- whether --

Mr. Katz: I'm sorry, there's someone on the --

Member Kotelchuck: Henry, have you heard me? Is that a problem?

Mr. Katz: Is that Andy?

Member Kotelchuck: That's Andy.

Mr. Katz: I think that's someone else speaking.

Member Kotelchuck: Oh, okay.

Mr. Katz: Someone on the line? Everyone on the line should have their phones muted. If you don't have a mute button, press *6 to mute your phone. But we're hearing somebody that we shouldn't be.

Member Kotelchuck: Okay.

Mr. Katz: Thanks.

Member Kotelchuck: Okay. Basically the new information is that I expect to have the Secretary's Report and I give it to Ted, and it will be given to the Subcommittee on, for our meeting on September 12th. And so we're online to move ahead.

And I hope, consider and I hope approve the report in December. At our December meeting. So that's important then. I'll look forward to it. Thank you.

Mr. Katz: Sure thing. Okay, and Procedures, I think there is no report for now. Is that correct? Right.

And so, let's go then down the list of Work Groups where, I can skip some of these because I know there is no report. And I'll do that.

Okay, I'm a little unclear. I don't believe there is a report for Argonne East, but I could be wrong. Brad?

Member Clawson: Argonne East, no, we're just finishing up into that. Just finishing up some parts.

Mr. Katz: Okay. And Blockson, I don't believe there is a report. Brookhaven, I don't believe there is a report. Correct, Josie?

Member Beach: Which, on Blockson, no.

Mr. Katz: Brookhaven. Brookhaven?

Member Beach: Brookhaven, no.

Mr. Katz: Right.

Member Beach: There is nothing new.

Mr. Katz: Okay. And Carborundum. Gen, do you want to report on Carborundum? You might be on mute, Gen.

Member Roessler: Okay, I think I have the mute off now.

Mr. Katz: There you are. There you are. You're very clear, thanks.

Member Roessler: Yes. I don't have anything to say on Carborundum.

Mr. Katz: Okay. Then Dose Reconstruction Review Methods is, there is no report for that. Hanford.

Member Clawson: It's in NIOSH's hands. We're waiting for the data captures.

Mr. Katz: Thank you, Brad. And INL. Phil, do you have anything you want to report about that? I know Argonne National --

Member Schofield: We're still waiting for some --

(Off microphone comments.)

Mr. Katz: Right. We heard, we heard a little bit already from Tim about that. About work ongoing.

Okay. And Berkeley we just discussed. LANL, Josie.

Member Beach: LANL you just heard from LaVon that we had a Work Group meeting in July to talk about the path forward on the two SEC issues. The Work Group should get a sample plan back. I believe it's in September.

And once that comes forward, the Work Group will look at that sampling plan and then determine if we're going to move forward with the other items NIOSH's list. The review of RWPs I think was one of them.

So anyway, our first step is actually to review the

sampling plan. And no date is scheduled for that yet, until we see the plan.

Are we still on track, LaVon, for September?

Mr. Rutherford: As of this time, yes.

Member Beach: Okay.

Mr. Katz: Thank you, Josie and LaVon. Okay, Metals and Controls. We spoke about that briefly --

Member Beach: Yes.

Mr. Katz: -- but do you want to say anything more, Josie?

Member Beach: I think we're waiting for one more item. I was just trying to look that up from Christine.

Mr. Katz: I can tell you --

Member Beach: Okay.

Mr. Katz: I can tell you where we stand with the items. So, we have reports from NIOSH, from DCAS, on both the welding --

Member Beach: The thorium.

Mr. Katz: -- thorium work and on the petitioner's concerns, which were addressed in detail. And we also have SC&A's report back, having reviewed the thorium and welding matters.

And they're in the middle of --

Member Beach: That's right.

Mr. Katz: -- reviewing the petitioner's concerns, responses from NIOSH. And once we have that, we'll go forward, we'll have a meeting.

But like I said, we've attempted to schedule a meeting for this fall and fallen on our faces on that, there is just too many conflicts unfortunately. So we will get that scheduled and notify people when we

have a data. But it won't be this fall.

Okay. And then Mound, I don't believe we, Josie, Mound?

Member Beach: Mound. We are still waiting for the external TBD.

Mr. Katz: Sure.

Member Beach: And there's no data actually even now. They kept pushing it out so I don't know when that's scheduled for. It's on NIOSH's plate.

Mr. Katz: Tim?

Dr. Taulbee: I don't have a date for that, but I can tell you that it is, the neutron issue is actively being worked at this time.

Member Beach: Okay.

Mr. Katz: Super. Thanks, Tim.

Dr. Taulbee: Okay.

Mr. Katz: Okay, NTS. We haven't seen anything in quite some time on NTS.

Member Clawson: Pretty well finished.

Mr. Katz: Well, we have an outstanding item that's been --

Member Clawson: Outstanding Site Profile issues.

Mr. Katz: Right. I don't believe we have any report, Gen, right, on X-10 Oak Ridge National Laboratory?

Member Beach: No.

Member Roessler: I have heard nothing, but Lara is probably on the line or there. She could update us.

Mr. Katz: Yes, she's right here.

Dr. Hughes: Yes. There is continuing data capture efforts going on to address the SC&A review of Report

90. So, it's an ongoing effort.

Mr. Katz: Yes, thanks for reminding us, I appreciate that.

Okay, Portsmouth, Paducah, K-25, there is still an item waiting to be put to bed maybe, Phil, correct?

Member Schofield: Yes.

(Off microphone comment.)

Mr. Katz: Yes.

(Off microphone comment.)

Mr. Katz: Yes, right. LaVon.

Mr. Rutherford: Yes. The White Paper has been provided to the Work Group. And so, SC&A has --

Mr. Katz: SC&A, oh, SC&A has it.

Mr. Rutherford: Yes.

Mr. Katz: Yes. Thanks. Rocky Flats? David is gone, he's the Chair of that. LaVon, do you want to just do the honors there?

Mr. Rutherford: Sure. Yes, there were some questions on five remaining boxes that the petitioner had identified. We did go out to Los Alamos and looked at those boxes. We identified two documents that we've captured, they're in classification review.

We also ended up picking up some information that we're doing some additional interviews with a few individuals on potential neptunium operations after 1983. We've completed two of those interviews.

We've been trying to get clearances reinstated to complete the other two interviews. We anticipate that happening in September.

Mr. Katz: Thank you very much. Okay, Sandia. Sandia?

Member Beach: Is that Henry?

Mr. Katz: Henry, yes, it is.

Member Anderson: Yes, I was trying to find my notes here. I think we have a few outstanding issues still. We're waiting for, I think, scheduling another Work Group meeting.

Mr. Katz: Okay. But I think we're not ready to schedule a Work Group meeting.

Member Beach: We're also --

Member Anderson: No, we're not ready we're just waiting. But that's what's on the horizon.

Member Beach: We're also planning a site visit, right? For interviews.

Member Anderson: Yes.

Mr. Katz: Yes.

Member Anderson: Pending on some interviews.

Mr. Katz: Okay.

Mr. Rutherford: Yes. NIOSH is working with SC&A --

Member Anderson: That's going to happen, it sounds like that's being put off now until December is it, or January?

Member Beach: No.

Mr. Katz: No, I think that's in November. Early November I think, right?

Mr. Rutherford: Yes, that's correct. Yes, we're working with SC&A to schedule interviews with the security guards, as well as conducting a site tour at the same time.

Member Anderson: Yes.

Mr. Rutherford: And the addendum is in with SC&A

under review.

Mr. Katz: Right. Okay. So that's --

Member Anderson: Right.

Mr. Katz: -- what's left. Thanks so much.

(Off microphone comments.)

Mr. Katz: Okay. We have spoken about Santa Susana today. And SRS is, Brad, did you want to have more you want to say about SRS?

Member Clawson: Yes, actually I do. Because we got two fundamental issues that we're dealing with right now. They're before OTIB-0081, Rev 4 is the internal. And that has been given to SC&A.

And we've got RPRT-0092, which is a subcontractor data completeness, which we're still waiting on, correct? Or has it been issued?

Mr. Katz: They're both issued.

Dr. Taulbee: They've both been issued yes.

Member Clawson: Okay. And we're pushing on through with that. They've got them with SC&A so we'll go from there.

Mr. Katz: Right. And just to remind everyone, I mentioned earlier we're looking at having a long Work Group meeting, joint Work Group meeting, on SRS later this fall.

Member Clawson: Okay.

Mr. Katz: Yes. Science Issues.

Member Anderson: Ted, I'm going to have to run. So, for Uranium Refining AWE Group, we're getting near heard of scheduling a meeting to deal with General Atomics, some of the active findings there. Discussion.

And W.R. Grace, finishing up. And then there is

NUMEC revisions as well. But we've got a number of issues to wrap up for that group.

Mr. Katz: Right. Thank you, Andy. So that's, just in case you couldn't hear clearly, that's the Uranium Refining AWE's Work Group. And it has a number of items on its plate.

Okay. So, Henry will be leaving us. Let me back up here and see who I've missed.

Science Issues, I know we don't have anything on the table, but, Dave.

Member Richardson: Yes, so we wrapped up this issue with a conclusion about the dose and dose rate effectiveness factor where NIOSH had recommended postponing implementation of anything until additional information that will allow concurrent update of the IREP risk models and assumptions.

Quite a while ago we had made a sort of a list of topics, which were out there, that we had on the table to consider.

I have gone back and reviewed and I would suggest, as a proposal to the next topic, we review and look into would be going back to assumptions within IREP about multiplicativity or sub-multiplicativity of the smoking-radiation association for the lung cancer risk model. That was one of the open issues.

And I think the time may be right. There has been a number of studies that have come out that could be useful for a review, at least of that topic.

Mr. Katz: Okay.

Member Richardson: So that would be my proposal.

Mr. Katz: Okay. Okay, I think, so we should get some communications going to get our heads around what kind of organization needs to be done to prepare for that. Thank you.

Okay, SEC Issues Work Group. That's lead by, also

by Andy, Dr. Anderson, who I think is gone now. But as I mentioned, they will be meeting with the SRS Work Group meeting to take up the co-worker models being proposed for SRS.

Okay. And we have the Subcommittees done. And then we get to TBD-6000. Paul.

Member Ziemer: I don't have anything on TBD-6000 per se, today.

Mr. Katz: Okay.

Member Ziemer: Did we skip Surrogate Data?

Mr. Katz: Nope. We haven't gotten there. We haven't covered that yet. We haven't covered that yet but you can cover that now.

Member Ziemer: Well, you were going alphabetically. We went from the S's to the T's, so I thought --

Mr. Katz: Because I have it as Use of Surrogate Data.

Member Ziemer: Oh, it's Use of Surrogate Data.

Mr. Katz: So it's a U.

Member Ziemer: Okay. It's under U, okay.

(Laughter.)

Mr. Katz: So, go ahead, Paul --

Member Ziemer: Okay.

Mr. Katz: -- hurry up and take it while you have it.

Member Ziemer: Take it while I have it. Surrogate Data Work Group actually met last week.

The focus of the meeting was on a blind review that SC&A had done for the Subcommittee on dose reconstruction. And the issue that had been raised by SC&A was the fact that NIOSH had used surrogate data to bound the dose for a particular individual. And SC&A had raised the issue as to whether the

surrogate data criteria had been met.

So, the Subcommittee referred that particular blind data reconstruction to the Surrogate Data Work Group to look at, and we did that. The dose reconstruction was for an individual at Allied Chemical and Dye. And after reviewing that, it was finally determined that the surrogate data criteria issue had been resolved. And we subsequently transferred it back to Dave. And he mentioned that he had the final piece of information, that was it. And he now can finish that report to the Secretary.

Mr. Katz: Thank you, Paul. Okay, that's it. That's it for the Work Group's reports. Okay.

So now --

Member Ziemer: Did we do Lawrence Berkeley?

Mr. Katz: Well, we talked about Lawrence Berkeley. Did you, I don't think --

Member Ziemer: Well --

Mr. Katz: -- did you want to report more on it?

Member Ziemer: Well, I just wanted to say the Lawrence Berkeley Work Group did meet in April. Well, it was teleconference.

And we're focusing on the Site Profile, and that Site Profile had, I believe it's 13 findings and some observations. And to date, only five of those findings have been closed, so we're still working on a number of them. And that's why I say, we're not in a position to take votes on anything in December, but hopefully we'll have some more resolved before the meeting. And also, some additional information is being gathered that we asked NIOSH to gather. So, that's being done. Megan is handling that. So, certainly be ready for a report to the folks in that area.

Mr. Katz: Thank you, Paul. Okay. And then the last item we have, we don't have any correspondence to address, but we have to run through the April public

comments.

I think quite a number of these are actually not really the public comments but they're petitioner comments. But in any event, we can run through them just the same.

So, the first group of comments are related to Sandia. And, you know, there were comments about needing more time to review the report by the workers and so on, and those were all addressed in real time at the meeting. Which, absolutely, they had more time to review these. And the Board's contractor for that matter is involved in reviewing those, as well. Same time as the petitioners.

The security guards, as I mentioned, also wanted people to see their circumstances. And we've heard talk just now about how we're setting up a site visit and interviews with some of those security guards. So that's all good. And that will all happen this fall.

Let's see. Alright, we had -- so far I'm seeing everything has been, everything was pretty much addressed in the meeting.

We also heard, just to remind you all, we heard from the Senator's Office. That's Senator Udall by the way. And on behalf of the Senator, Michelle Ortiz, Jacquez-Ortiz, had mentioned a number of things, including a 2005 report from DOE that identified deficiencies at SNL and the Board's contractor is reviewing that addendum. So that's responsive to that matter. And SC&A is reviewing everything. So, let's see, petitioner is -- okay, that really takes, I'm just summarizing, what little I've said is really, covers the waterfront for what we heard on Sandia.

And then we heard from D'Lanie on Santa Susana about the Site Profile deficiencies in her view and about TRUMP-S. We've addressed all these things about Boeing's practices and personnel records. About, yes, more about Site Profile being, in her view, deficient.

Okay, Superior Steel. We heard about how the petitioner had issues about using data from a much larger facility to reconstruct dose for Superior when work was done in a very confined area. And NIOSH has responded to that, we're using site-specific air monitoring data and TBD-6000 is covering some matters. So that's surrogate data in effect coming from many sites regarding the certain practices.

Okay, also questions about use of Simonds Saw and Steel data, but going forward we're using TBD-6000. And there were other comments that didn't really require a response.

Okay, that covered the public comments. You have them all. Do you have any questions about any of the responses to the comments?

Alright. We are then at the point of a break. We have a Y-12 SEC petition that should start promptly at 4:30. So you have about a half an hour break now. Thank you very much.

(Whereupon, the above-entitled matter went off the record at 3:52 p.m. and resumed at 4:32 p.m.)

Mr. Katz: Thank you. Okay, we're back from break. Welcome, everyone. I think there are few new faces in here, which is great, I expect from people here locally.

So we have just about, Lara will get started in a second. We have a Y-12 SEC petition that's going to be discussed and potentially acted upon at this meeting, say in real time.

And after that, at 6 o'clock, we have a public comment session. So just to tell you how this will work, we will, depending on how things go, we might go straight into the public comment session. I'll have a few things to say before we start that public comment session, but more or less straight into it.

So if we finish this SEC petition discussion earlier than the scheduled says, we'll start the public

comment session earlier as well. So I just encourage you folks who are here in the room who just joined us, as well as anyone who may have just joined us on the phone, to hang in with us so that you don't miss the public comment session if we start early.

And otherwise, we're ready. So Lara Hughes, thank you, presenting for NIOSH.

Y-12 SEC Petition #250, by Dr. Lara Hughes, NIOSH

Dr. Hughes: Thank you, Ted. Can you hear me okay? Are things loud?

So good afternoon, everybody. This is the NIOSH presentation for the SEC-00250, SEC petition evaluation for Y-12.

At this point, I'd like to thank our contractor, the support of our contractors from the ORAU Team, Paul Demopoulos and Joe Guido, who did the heavy lifting on the research and collection of data on this petition.

Member Lockey: Hey, Ted?

Mr. Katz: Yes?

Member Lockey: Jim Lockey. I think I don't participate in the Y-12, right?

Mr. Katz: That's correct. You're recused from this.

Member Lockey: Right, so I'll just drop off then.

Mr. Katz: Yes, you can listen, but you just can't participate. Thanks.

Member Lockey: Got you, okay. Thank you.

Mr. Katz: Okay, take care.

Dr. Hughes: Okay.

Member Roessler: Ted, this is Gen.

Mr. Katz: Yes, Gen? Yes?

Member Roessler: Can she get closer to the mic? It's hard to hear her.

Mr. Katz: Okay, thanks. Yes, Lara is a quieter one.

Dr. Hughes: Okay. So is this any better?

Member Roessler: Yes, that's better.

Dr. Hughes: Okay. Let's see if I can keep this up. So as there are several SEC petitions or SEC Classes for Y-12 already, this is actually Petition Number 6.

There were some petitions or Classes that were added early in the program, SEC-18 and 28, covering the period from the beginning of operation in 1943 through 1957. Those Classes at the time were worded in a way that was difficult for DOL to administer the Classes.

So NIOSH went back and kind of re-did the evaluation to make the Class Definition more usable, those were SEC-98 and 186, bringing the SEC Classes up to 1957. And then last year there was a Class added, up to 1976 based on an infeasibility of internal thorium dose reconstruction as well as plutonium-241.

And now we're looking at SEC-250, which is the current petition, which I'm presenting today. This petition was received on November 1st, 2018, with a proposed Class of all workers who worked in any area of Y-12 where uranium of was fabricated or processed from January 1st, 1980, to December 31st, 2000.

This petition was submitted with a number of documents to provide evidence that this petition should qualify. And NIOSH had extensive discussion with the petitioner about the evidence and what kind of evidence was needed. And in the end, what qualified was all employees who worked at the Y-12 plant that may have incurred thorium exposures during the period from January 1st, 1977, through December 31st, 1994.

And if you recall, this is actually based on the conclusion that was presented in the previous SEC petition for thorium. There was the period after 1976 was kind of reserved, and NIOSH had determined that this needed to be evaluated which was, in the end, what qualified this petition as well.

The reason the qualified period was cut off in 1994 was that the Y-12 plant was placed in stand-down mode in September of 1994 which ended routine processing operation and thus was a suitable end point for the qualification.

So the conclusion from this evaluation is threefold. Part of this period is not recommended by NIOSH to be added to the SEC. That is August 1st, 1979, through December 31st, 1986. During those years, thorium doses can be reconstructed with the available data. And I will talk about that a little more. There's also a reserve period, January 1st, 1987, through December 31st, 1994. We're still working with Y-12 to gain access to all of the available thorium data. And before we don't have access to all this data, we can't do a thorough evaluation on the feasibility. So therefore, this period is reserved.

The reason we did not hold up this petition any longer, until the data was received, is that we also propose to add several years to the current SEC or to a new SEC Class. And this is also due to the thorium unavailability for certain years.

So the proposed Class definition is all employees of the Department of Energy, its predecessor agencies, and their contractors, and subcontractors who worked at the Y-12 plant in Oak Ridge, Tennessee, during the period from January 1st, 1977, through July 31st, 1979. And I'm not going to read the rest of the wording, since it's always the same. So this is the Class that we're proposing to be added to the SEC.

Just brief background on the Y-12 claim numbers. We have 6,525 total claim numbers for Y-12 submitted for dose reconstruction at NIOSH. For the period currently under evaluation, we're looking at 3,615

workers.

Over 3,200 had dose reconstructions completed during this period. But 1,688 had internal dosimetry during this period. So that's about 47 percent. And 3,267 had external dosimetry records available for this period which is about 90 percent.

The standard sources of available information that we look at, we look that the Site Profile, technical information, bulletins and procedures that are available at NIOSH. We look at the NIOSH Site Research Database which is the database where all the documents are deposited once they've been collected from searches at the site, at federal record centers, various sources. We have currently over 10,000 documents related to Y-12 in this database. We look at existing claimant files, co-worker study, electronic databases, interviews with former Y-12 employees, or current employees for that matter, and scientific publications.

Y-12 history, the site that's located here in Oak Ridge, it's 811 acres, 0.6 by 3.2 miles in dimension. Its peak employment was about 22,000 workers. I think that was in the late '40s, mid to late 40s. It's down to 5,700 by 1998. The covered period under EEOICPA is 1942 to the present.

The site history is long and complex. And I don't do it justice by giving it one slide, but that's all we've got here. We roughly, for our purposes, our Technical Basis Document, roughly divides the site history into three eras.

The first era was up until 1946 the uranium isotope separation using calutrons. The second era, until about 1994, was Cold War nuclear weapon component manufacturing, the production and testing of key components for nuclear weapons, stockpiling highly enriched uranium, and technology development for new weapons designs.

There is a third era after 1994 consisting of multiple new missions, continued storing of highly enriched

uranium, continued weapons part production on a smaller scale, also some D&D operation, as well as environmental and waste management.

A large focus of this evaluation was the thorium operations. The thorium parts production at Y-12 started with the pilot program in 1959. It consisted of thorium pellets that were pressed into electrodes and were arc melted into ingots. These ingots from the melting were pressed, rolled, and machined. The scrap from this process was recycled and fed back into the process.

During this process, what happens is that radium and other thorium progeny are volatilized, brought into the air, and are available for inhalation by workers. The major part of the thorium processing ended in the mid-1970s, and all thorium arc melting ended in 1994. There was continued thorium operations on a smaller scale that consisted of parts refurbishment, and that went on until 1999. From 1994 through 1998, the entire Y-12 plant was in a stand-down, so during that time, there would not have been any of this going on.

And all special projects ended in 1999 after an incident. This was not a thorium-specific incident, but it affected the thorium operations as well. The process buildings are listed on the slide, those were the main buildings where thorium was handled, and also some storage buildings.

So the uranium processes, just for completion, uranium processes, uranium was processed to produce weapon components using a variety of compounds and enrichments. Compared to the thorium operation that we spent so much time looking at, the uranium was a much larger scale process.

The uranium enrichment started in 1943. After World War II, uranium operation shifted to recovery and recycling, mostly normal and depleted uranium. The uranium production processes also included the arc melting process that was a similar process for the

thorium.

Machine components were sent to finishing operations that included drilling, welding, brazing, polishing, and final specification checks.

A third larger scale or main operation of the Y-12 plant was the isotopes production group. This was actually a group that was coming out of Oak Ridge National Laboratory. It was staffed by workers from Oak Ridge National Laboratory, but it was done at the Y-12 site.

The ORNL used the Y-12 facilities for isotope production, separation, and purification. They have produced a variety of radioactive and stable materials. And the operation, and the nuclides, and the feasibility, or the available monitoring for these were addressed in the previous NIOSH report, RPRT-90, that was to address exotic radionuclides at ORNL.

This group used the calutrons. Those were the calutrons that were initially used for the uranium enrichment. They have been re-purposed, moved to a different building, and were used to produce uranium and plutonium isotopes.

They ran the 86-inch cyclotron for medical isotope production that operated from 1950 to 1983. And there was also a facility called the conversion lab which was a radio chemistry facility that handled the radioisotopes from the calutron and cyclotron operations.

So now to the exposure potential, first for uranium, and exotics, or other isotopes, inhalation of airborne particulate radioisotopes was the main concern for internal exposure to these isotopes. But this radionuclide uranium was the principle source of internal exposure at Y-12 due to the large scale of the operations.

There were trace quantities of plutonium, neptunium, and technetium from recycling uranium. The radionuclides handled by the isotopes group at Y-12

included up to 213 different isotopes, give or take a few. Again, these materials are detailed in ORAU-RPRT-90 which is currently being reviewed and discussed under the NIOSH/ORNL efforts. That's currently also being looked at with Work Group, so that's a separate, ongoing effort. There are available data for uranium and those other isotopes that are sufficient to bond doses to these nuclides.

As for the thorium exposure potential, thorium is part of a decay chain. The number of separations of the thorium affects the dose. The nuclides of particular dosimetric concern are thorium-232, thorium-228, and radium-228.

Arc melting is the thorium process of most concern to the significant release potential of airborne contamination. What happens during arc melting is that it disrupts the thorium decay chain, and large quantities of the radium contained in the metal is vaporized and released into the air.

Also, the ingot that is produced from the arc melting has a more radium enriched outer layer which is a concern when this material is used, or it's later on machined, or forged, or shaped in any way. The radium-224 and its sub-series in the material quickly return to equilibrium because of the short half-life of radium-224.

So we took a look at the internal dose data that is available for thorium. So we found that we have lung counts in vivo data for thorium for 1977 through 1994. There was a change in recording procedure in August 1979 for the 1977 through July 31st, 1979, period. Thorium results are recorded in units of milligrams. This was the same issue that was presented in the previous SEC petition, SEC-251 for Y-12, when the in vivo counts are presented in units of milligrams. But we don't have any information available on how this calculation was arrived at. We cannot use this to reconstruct doses.

After July 31st, 1979, due to the change in recording procedure, NIOSH has usable thorium lung count

data up until 1986. The data can be used to reconstruct doses.

After 1987 data is available, according to Y-12, and we believe that this data can be used to reconstruct doses. However, there are currently accessibility issues. We're working with Y-12 to receive this data. And whereas we believe that this data might be usable, we still have to evaluate it.

The Y-12 in vivo data is from the in-house whole body count facility using sodium iodide or a germanium detector system. And for NIOSH to use these results in dose reconstruction, the results have to be associated with the actinium-228 and lead-212 measurements.

And for the period from August 1979 to December 31st, 1986, lung counts in these data are available to assign doses to thorium chain disequilibrium is an issue that needs to be considered. There's no measurement data for radium-228 available, but we can assign the radium-228 based on the actinium-228 measurement.

This is what the current available thorium records look like from 1979 through 1986. There's a number of individuals that were monitored, a total of 808, and the measurements are just a bit over 1,000 separate measurements that are available and that are currently usable.

To do the dose reconstruction for thorium, we have a method in place. It's outlined in OTIB-76, guiding reconstruction of intakes of thorium resulting from nuclear weapons programs. It describes in detail how we would go about assigning doses. The thorium results have to be associated with in vivo results for actinium-228 and lead-212. And the separation history of the material has to be known or assumed. For the Y-12 proposed approach for thorium, we assume the triple separated because that's the most claimant favorable.

So we can use the lead-212 results to estimate

intakes for thorium-232 and 228. And we can use the actinium-228 results to estimate intakes of radium-228. And once we have the estimated intakes, we use those to assign organ doses.

So in summary, for the internal dose, we have determined that internal dose reconstruction is infeasible from January 1st, 1977, through July 31st, 1979. This is the SEC cost recommendation.

From August 1979 through December 1986, we analyzed the actinium and lead data for the internal data that is available for thorium lung counts. And to say that can be used to bound exposures to all thorium workers from January 1987 through December 1994, we have reserved the section of the Evaluation Report. This data is expected to be obtained from Y-12, but it needs to be evaluated for suitability to be used in thorium dose reconstructions.

Internal doses to uranium and exotic isotopes can be bounded using available methods as discussed in the Technical Basis Document and RPRT-90.

A little bit on external dose, there was a dosimetry film badge system that was adopted for use for all Y-12 facilities in the pre-SEC-250 time period before 1977. It was issued to all personnel at Y-12. It was part of their security badge. These badges provide routine and accident related monitoring.

In 1980, they switched from film badges to TLDs, thermoluminescent dosimeters. We also have an external co-worker model, in percent is an OTIB-64, that has data from 1952 to 1979. That's the film badge period. And then external doses can be assigned based on available data and methods.

This is the summary slide for feasibility findings for thorium internal dose. Dose reconstruction not feasible, January 1st, 1977 to July 31st, 1979. Thorium dose reconstruction is feasible from August 1st, 1979, through December 31st, 1986. The period January 1st, 1987, through December 31st, 1994, is reserved.

And for internal uranium and exotics, dose reconstruction is feasible during the evaluated period, and it is also feasible for external dose, beta gamma neutron, and occupational medical X-ray.

Again, the recommended Class definition is all employees who worked at Y-12 from January 1st, 1977, through July 31st, 1979. And that's the end of the presentation.

Mr. Katz: Thank you, Lara. So let's first go to questions from Board Members in the room. Josie, you have yours up.

Member Beach: Yes. I guess my question pertains with the cut-off period of '94. I know on the earlier slide 3, it talks about it was put into a safe mode or whatever the term was. But then it goes on to your site history. And there were obviously activities going on past '94. So anyway, that cut-off point is of interest to me of why that date?

Dr. Hughes: Yes. The production was put in stand-down mode in that time. I mean, there was probably, the main issue here is the thorium processing. And that would not have taken place during that time.

Member Beach: Well, that arc welding you talked about, the incident in 1999, but you said it was not thorium, it was uranium. And you're 100 percent sure on that ---

Dr. Hughes: Well, based on the information --

(Simultaneous speaking.)

Dr. Hughes: -- that was in the incident report, yes.

Mr. Katz: Brad?

Member Beach: Thank you.

Member Clawson: Yes. This petition has been in NIOSH hands now. I guess my question is for our contractor. Have we reviewed this information yet? Do we even, do we have a Work Group for this?

Member Richardson: Can't hear online.

Mr. Katz: Brad, you have to speak to your mic. But Brad asked if our contractor, we're getting ahead of ourselves, but whether our contractor has reviewed this Evaluation Report. They have not yet.

Member Clawson: Okay.

Mr. Katz: It was just produced recently. So that's something we'll get around to later if we need --- and was there a second part to your question, Brad?

Member Clawson: No, I was just wondering if we had evaluated it yet. I'm getting familiar with Oak Ridge.

Mr. Katz: Yes, no worries. And we do not presently have a Work Group, but that's something that can be done.

Other Members in the room who might have questions, any? David?

Member Richardson: You started off by describing the number of workers at the Y-12 facility who had been employed at different periods. And it went from something like 22,000 to maybe 5,000 in more recent periods. For this period '77 to '79, do you know how many workers were onsite per year?

Dr. Hughes: I don't have this information with me at this moment, no. I can certainly find it out for you.

Member Richardson: But it's somewhere in the 1,000s?

Dr. Hughes: Absolutely, yes.

Member Richardson: And do you have the ability to place workers into departments and areas in a given year with high versus no potential for exposure to thorium?

Dr. Hughes: It would depend on the information that's available in the particular claim file.

Member Richardson: I ask because it looked like the availability of in vivo thorium measurements year by year was in the double digits between '95 and '87 in any given year, out of 5,000 to 7,000 workers in a given year. It's a small fraction of the percentage of the employed workers onsite who would have been monitored.

Dr. Hughes: That's correct, but it's reflecting the size of the operation compared to the uranium operation. So it was a much smaller scale operation than it was --

Member Richardson: I understand that. Under the presumption that those who were monitored in 1979, those 46 with measurements, that constituted a complete enumeration of the workers with potential or if I look, I mean, I did some work with the Y-12 bioassay and in vivo monitoring program.

I remember in the mid-70s there being about maybe 40 percent of the workers had any in vivo monitoring per year. And then when you get to this period, you're right, there's an abrupt transition in '79. And it drops down to about 25 to 30 percent of the workers has any in vivo monitoring. And now a very small fraction of them have any thorium monitoring. And it's always been a question about what fraction of the workers with exposure potential do we have information for, so 46 out of what? That becomes an important question when we start to access the usefulness of 46 records in 1979 for reconstructing their exposures.

Dr. Taulbee: If I could try to answer your question a little bit, David, I understand what you're saying, but as Lara pointed out, this is a small operation, very small compared to the uranium operation. And so there would be a smaller number of workers that would have that potential for thorium exposure.

How many workers that is, I don't know off the top of my head. That's something that we could investigate a little bit more and probably will come up then under this review of this time period.

So, you know, in '46, if you look at those numbers, it does stand out. But that's also for a partial year. Because that change happened July 31st of 1979. So you've only got the thorium campaigns or the thorium arc meltings that happened in the latter half of that year. Those workers are the ones that we're looking at.

There were more thorium measurements in that year, other than just the 46. The problem is that they did not have the actinium-228 and the lead-212. These are just the ones that had the actinium-228 and the lead-212.

Member Richardson: Right. So if we assume that it's two or three times that, and we've got 130 measurements, as we do for 1980, the next year, it's still a question of what information would allow us to know how many workers were potentially exposed for which we have the measurements. Because in different periods in the Oak Ridge complex, different factors have driven the determination about who gets an in vivo monitoring result and who doesn't. And some of it's technical, or technical considerations, and other ones are professional and status considerations.

Mr. Katz: Other questions, Board Members in the room? On the phone? Any Board Members on the phone have questions?

Okay then. Well, I have a suggestion for how to work this going forward. We sort of have multiple parts here. We have a proposal for adding a Class now, sort of like you think of with the 83.14s. We have a Class that's ready to be added if you want to take up that consideration.

Sorry, oh yes. Oh, sorry, I do need to hear from the petitioner. Thank you. So just hold that thought. Excuse me, and let's go to the petitioner. I think I'm pretty sure we have at least one petitioner who does want to comment.

Mr. Hicks: Good evening, Board. My name is Stephen

Hicks. I'm the SEC petitioner to expand the years of the Y-12 Special Exposure Cohort. Thank you for allowing me to address the Board.

I worked at Y-12 for 32 years from 1980 to 1985. I machined enriched uranium, depleted uranium, and alloys in both materials. I worked with radioactive materials on a daily basis for five years. I submitted samples for bioassay, but they were never recorded.

I submitted this petition because I have evidence that my bioassays were missing from my dosimetry records prior to 1990 even though I worked with uranium every day for five years.

It was a slap in the face when I read the NIOSH response, found on Page 49. The statement and reference document indicated that the worker in question, that is me, was not required to be monitored for specified periods of work at Y-12.

A machinist who worked with uranium compounds was not required to be monitored? Really? Then exactly who should have been monitored? Who was monitored? I can't believe that NIOSH agrees that I and other Y-12 machinists didn't need to have bioassays simply because Y-12 said so.

Instead of qualifying the petition for internal uranium exposure, NIOSH qualified it for thorium. They completely ignored or dismissed my evidence and arguments that the dose cannot be reconstructed for internal uranium exposure.

For example, I submitted a copy of the 1999 Oak Ridge National Lab Y-12 uranium exposure study. NIOSH said, on Page 50 of the Evaluation Report, the report is authorized by Oak Ridge National Lab which is not a government agency of the Executive Branch of the government or the General Accounting Office.

Does NIOSH not know that the Department of Energy, a member of the Executive Branch of the government, owns Oak Ridge National Lab? Does NIOSH not realize that Oak Ridge National Lab's

history began during the Manhattan Project and was previously known as Clinton Lab and X-10? All three names are accepted as covered DOE facilities under the program.

It appears that they dismissed everything in this Oak Ridge National Lab report. NIOSH says that if a worker had a fecal sample in his record, it was a strong indication that he was exposed to insoluble uranium. However, Y-12 did not have routine fecal sampling prior to 1999.

In 1999, Oak Ridge National Lab Y-12 uranium exposure study states these observations necessitate change in the bioassay program, particularly the need for routine fecal sampling.

I've got to pull a Trump here.

(Laughter.)

I sort of lost where I was at. I'll start, let's see, okay. It appears that they dismissed everything in the Oak Ridge National Lab report. NIOSH says if a worker had a fecal sample, okay, I've done read that.

Let's see, yet the Oak Ridge National Lab report determined that the only way to monitor workers for insoluble was through routine fecal sampling. They acknowledged that that was not done prior to 1999.

NIOSH's presumption that workers with fecal bioassays would be only the ones exposed to insoluble uranium is wrong. NIOSH says they have enough urinalysis to reconstruct dose for insoluble uranium. My position is that they do not.

If Y-12 did not have a routine fecal sampling monitoring program to determine whether workers were exposed to insoluble uranium, then the number of urinalysis NIOSH shows on Page 33 is woefully inadequate. Because apparently, this table only shows the number of workers who had a fecal bioassay.

I was exposed at Y-12. I machined uranium. I actually had to carry highly enriched uranium part on my chest for one machining process. I have no monitoring records in my file. Where did NIOSH come up with that 30 percent employees had urinalysis?

I'm not a math whiz, but I know enough to average statistics. If the lowest percentage of workers with urinalysis in one year was 12 percent, and the highest was 19, the average is 15.5 percent, not 30 percent as NIOSH claims.

The co-petitioner and I consulted with a prominent and expert statistician professor, Dr. Chris Baker. Dr. Baker could not reproduce any of the calculations that the NIOSH prepared. I would appreciate if NIOSH would explain how they arrived at these percentages.

I also submitted the July 15th, 1999, DOE memo concerning the complex-wide programs with the bioassay programs. This memo is not cited in the Evaluation Report. You would never know I submitted it. You wouldn't find it on Page 19 and 20 of the ER. It can only be found and read in the letter I submitted with the petition. Why did NIOSH hide this from the Board?

I know the Board has viewed this memo as it applies to Los Alamos SEC. I want to realize that this is relevant to this petition too. I am thankful that NIOSH reported that they cannot reconstruct dose for thorium first with the SEC Petition 251 that is now recommending additional Class be added, July 31st, 1979. I hope the Board will accept this recommendation today.

NIOSH says it's working the Y-12 site to get the information on thorium data for 1987 through 1994. I have never heard such a thing. That is not how the SEC process worked in the past.

If they don't have the data when drafting the ER, the recommended ER status for the site, I've never heard of them telling the Board that they're going to see

what they can find and get back to you later. How long will they expect this to wait?

And there's no guarantee that Y-12 will have the data they are seeking. NIOSH says the data may allow NIOSH to estimate the maximum internal potential exposure. This isn't fair to claimants.

In fact, NIOSH's own regulations state that it is only feasible to reconstruct dose if NIOSH has established that it has access to sufficient information to estimate dose. They don't have the records, they may not ever get the records. Our claimants will die before NIOSH admits that they don't have the records necessary to reconstruct dose.

I ask the Board to reject the idea of waiting to see if NIOSH gets the information from Y-12 and vote to also include workers employed between 1987 and 1994. I thank you for allowing me address the Board. Are there any questions?

Mr. Katz: Thank you, Mr. Hicks.

Mr. Hicks: Okay.

Mr. Katz: And do we have the other petitioner? Do you want to comment too?

Ms. Barrie: Thank you for allowing me these brief moments. Actually, what I'd like to do is just tell you a story. My husband, as you know, worked at Rocky Flats plant. And he loves reminiscing about the things that he did as a machinist at Rocky Flats.

And one night a couple of weeks ago, he was telling me about how this one part was so difficult to machine, because it was almost impossible for the machine to grab onto it. And he told me that the only way we could do it, or they could do it, was to use a vacuum clamp, okay.

So I'm thinking that's pretty cool. You know, I have a little bit of background in, you know, machining, being married to a machinist. So I understood that

policy or that technique. But then let him go ramble on while I read my book.

Well, I had to, I consulted with Steve Hicks a couple of days later about the SEC petition. And he started telling me about his machining experience. And he says, you know, Terrie, we had this one part. It was shaped like half a globe, and it was so difficult to machine we had to use a vacuum clamp to hold onto it.

And I was just, like, blown away. George and Steve have never, ever spoken to each other. They're both machinists during the same time period. But yet, my husband has some bioassay records from Rocky Flats, not many, because I think there's four of them, whereas Steve Hicks has none before 1989, doing the same job at two different facilities.

One facility thought one worker should have been monitored, at least minimally, whereas another one said no, machinists don't need to be covered or monitored. So that didn't make a whole lot of sense to me.

So I want you to realize that, while we're both thankful that you are extending thorium for a couple of years, and are looking -- well, we don't think you should have an open-ended waiting for Y-12 to supply the documents, but the Board really needs to take a look at the uranium issue and the people who were not monitored.

Like Mr. Hicks said, if he wasn't monitored, who was monitored and why wasn't he monitored? And that's what I have for the Y-12 plant. Thank you very much.

Mr. Katz: Thank you, Terrie. So Board Members, do we have questions about the petitioners' comments? Alright, David?

Member Richardson: Just a question at the start, did NIOSH work with the petitioners to expand and then contract the Class Definition? Because it appears now that it doesn't cover all the original period that it was

for.

Dr. Hughes: NIOSH works with the petitioner to qualify an SEC petition when it is submitted. There's certain criteria that needs to show, to support any of the petition basis, therefore different petition basis. And the petitioner has to submit evidence that would support an evaluation. And so we worked with the petitioner on that. Yes, that's correct.

Mr. Rutherford: Yes, I'd like to add to that too. We take every one of the petitioner documents and the basis provided by the petitioner, and we respond to each one of those. And in our process, we basically identify why the basis they provided does or does not respond or does not qualify the petition. So each of those items were responded to.

In this case, we recognize we had the open issue with thorium that we still haven't resolved. And we recognize that this would be a good method to move that petition forward and get it out in front of the Board.

Mr. Katz: Thanks, LaVon. Other questions on these petitioner comments or what was said before from Board Members, or on the phone, Board Members on the phone?

Okay, so earlier I jumped ahead of myself. But let's see what we can do with this, what we have here. So we have, oh, Josie are waiting to comment?

Member Beach: No. I was actually going to make a motion. But I'll wait until you're finished.

Mr. Katz: Okay. Yes. So we have multiple parts here. We have a finding of infeasibility and an opportunity to add a Class to Y-12 today. And I think we should take that up.

We also have a period where, because it's found feasible, it's feasible to do dose reconstruction, and we probably want a discussion about that period, and the period that's reserved is basically, it hasn't been

delivered to you yet. So I don't think that requires a whole lot of discussion. But you're welcome to have that back piece too.

But why don't we, if it suits you, why don't we start with the petition that we have at hand and see, just a little bit of discussion. Does someone want to put forward a motion to move forward with what we have?

Member Beach: I would like to make a motion that we move forward with the time period of January 1st, 1977, through July 31st, 1979, NIOSH's recommendation to add that as an SEC.

Mr. Katz: Do we have a second?

Member Clawson: I second it.

Mr. Katz: We have Brad for a second. Okay, it's on the table. Do we want some discussion of that, do we have some discussion of that?

Or on the line, anyone have any comments, questions about that?

Okay, let me read the motion before we then go. Because the next step then is to go to a vote on that portion.

So just so it's clear for the record, let me read what we would have. We would have the Board respectfully recommends that SEC status be accorded to, quote, all employees of the Department of Energy, its predecessor agencies, and their contractors and subcontractors, who worked at the Y-12 plant in Oak Ridge, Tennessee, during the period January 1, 1977, through July 31st, 1979, for a number of work days aggregating at least 250 work days, occurring either solely under this employment or in combination with work days within the parameters established for one or more other classes of employees in the Special Exposure Cohort.

That is the motion on the table for the vote. And we

have a couple of Board Members on who've left the meeting. So we will have absentee votes too. But let me go down the list. And I believe, but I'll just check, I believe Dr. Anderson has left us. So that would be an absentee vote to collect.

Ms. Beach?

Member Beach: Yes.

Mr. Katz: Mr. Clawson?

Member Clawson: Yes.

Mr. Katz: Dr. Field?

Member Field: Yes.

Mr. Katz: Dr. Kotelchuck has also left. And Dr. Lockey is recused from this action.

Dr. Richardson?

Member Richardson: Yes.

Mr. Katz: Dr. Roessler? Gen, you may be on mute.

Member Roessler: Ted, this is Gen. I had my mute on.

Mr. Katz: There you go. Your vote?

Member Roessler: Yes.

Mr. Katz: Yes, thank you.

Mr. Schofield?

Member Schofield: Yes.

Mr. Katz: Ms. Valerio?

Member Valerio: Yes.

Mr. Katz: And Dr. Ziemer?

Member Ziemer: Yes.

Mr. Katz: So among the Members present, it's unanimous. And there's a sufficient number for the motion to pass. And for folks in the room, just the process from here forward is we will collect absentee votes, and then that will complete the vote for this.

And then it will get put forward to the Secretary within a certain amount of time. And as well, NIOSH will make a recommendation to the Secretary, and then the Secretary will take action.

So there are several months ahead before you'll actually see this going forward. And it has to be sent to Congress. And Congress also has 30 days to consider, not that Congress has ever acted on any of these, but they have the opportunity to act on one of these. But they have the opportunity consider before it takes effect.

And then DOL will implement it. And we will put out a notice saying it's taken effect. So anyway, just to let you know there's a few months path ahead of us before it's actually effectuated. And members can then be, who have claims in, can be added to this Class.

Alright, so then we have a period of time from 1979 to '86 where NIOSH has recommended or it has found that dose reconstruction is feasible related to the thorium question. And so let's have some Board discussion about that and how you want to proceed. Paul?

Member Ziemer: We don't have a Work Group that --

Mr. Katz: Correct, we don't have a Work Group.

Member Ziemer: So I think it's clear the Board would like to consider this in some manner. Normally that would take a Work Group. So I recommend, I don't think we need to vote on it, I recommend that we have a Work Group to do this.

Mr. Katz: Right. I will assemble a Work Group for

that. And so I'll be getting in touch with you after the meeting with respect to that.

Member Beach: Well, and I was curious if this wouldn't fit into Oak Ridge's Work Group. Or is it not --

Mr. Katz: No, because it's a different facility -- this needs a Work Group, I think --

(Simultaneous speaking.)

Member Ziemer: It's different. For example, I'm recused from X-10, but not from Y-12.

Member Beach: Oh, got you. Okay, then let's not do that.

Mr. Katz: Yes.

Member Beach: Can we assign it to SC&A at this meeting for review?

Mr. Katz: Of course we can. And I think we should. But that's up to you.

So other discussion points, thoughts in any areas of focus that you want to have SC&A address when they do their evaluation? I mean, they can do it generally, they can also add some particular focus. It's up to you.

Member Richardson: I would certainly encourage them to have their evaluation consideration be broad enough to not only encompass thorium but also uranium.

Mr. Katz: Okay.

Member Richardson: That seemed to be the major point raised by the Claimant, and certainly logical, and matches with my perceptions of it.

Mr. Katz: Right. And they'll have the comments from this meeting to consider as part of that, SC&A will. Other thoughts, including my Board Members on the

line?

Okay, then.

Member Beach: Oh, I have one.

Mr. Katz: Oh, go.

Member Beach: I don't think SC&A was involved in any worker interviews. And I'm not sure when NIOSH did their worker interviews. But I'd like to see a focus being placed on interviewing some of the workers.

Mr. Katz: Okay. Normally that's ---

Member Beach: For this time period.

Mr. Katz: I mean, first the SC&A needs to look at what informational needs there are before deciding whether you're going to do interviews and ---

Member Beach: You asked for focus, so that's what ---

Mr. Katz: Yes. No, no, that's helpful. But, I mean, I think they need to judge what evidence is in-house already.

Member Beach: Sure.

Mr. Katz: Yes. And that's really been coordinated between NIOSH and SC&A. They'll both be involved. Anything else? Alright, then.

And then, so I'll be putting together a Y-12 Work Group. And several of you, I think, in anticipation had already let me know that you were interested in Y-12. But not many people have responded. And here's another chance, just if you're interested. And I'll reach out to the two Members who are not with us right now. If you're interested in being on the Y-12 Work Group, please, pop me an email so I know that.

Member Beach: You don't need another one from the ones --

Mr. Katz: I don't need another one from the --

Member Beach: -- those of us that already said?

Mr. Katz: -- the early volunteers, I have you, I think.

Member Beach: Okay.

Mr. Katz: Yes. But thank you. Okay, and there was a final piece that's reserved, I think, unless someone has a concern about that at this point. You know, they haven't done their work yet. So there's really nothing to chew on.

Okay, but now we'll have a Work Group, so you're all set. Alright.

Member Beach: Is there any timeframe. I know that's the big question. Is there any timeframe in the works in-house? I know we have West Valley and that one.

Dr. Hughes: So your question is for the Y-12, the data? I'm not sure. I don't expect it to take extremely long. I assume that we're going receive data within the next few months. But then it needs an evaluation.

And one part that we looked at for the data that we presented here, there are 1,000 data points. This was data that was already digitized by Y-12. So it was easily available.

As I understand, the data that is available past 1986 consists mostly of scans of the raw data. So there would be a significant coding effort involved if it was to be used for anything like a co-worker model or so.

But I might be getting ahead of myself. The evaluation, I'm not sure exactly, but I don't expect it to take extremely long. I'm sorry, it's not a very good answer, I know –

Public Comment

Mr. Katz: That's okay, I'm hearing not less than six months at least.

Alright. So now, I think we can move right into, I don't know --- so we're a little late, but I think we

can move into public comments. So let me just prep you all for that. We've gone through all of our substantive items today.

Public comments, you're all welcome to speak. We'll start with people in the room, and then we'll go to people on the phone. And we'll start with public comments related to Y-12, because we like to do the local issues first.

And whatever you say, you're welcome to say whatever you wish. But if you give private information about other people, other than yourself in other words, no matter relatives or other, that private information we'll protect. Because we don't know for certain that that person wants that information in the public sphere, although it's in the public sphere for the meeting.

So because everything's transcribed and published, in effect, on the NIOSH website from what we -- we have a verbatim recording. So that information that is private, we'll redact that information enough to protect that person's identity for information you give on other people, so just understand that.

But otherwise, you're welcome to tell us whatever it is that you have related to the Y-12 plant to start with, or other matters.

Member Ziemer: Do you have Zaida's sheet?

Mr. Katz: And no, we need to get Zaida's sheet. Right, Nancy's right there. Thanks. But if there's someone in the room who wants to step up now while we're waiting for the sheet, we can do that too.

Okay, and please identify yourself, and let me know if you're already on the sheet. Because then -- you are?

Ms. Vinson: Yes, I am. I'm Number 1 on the sheet.

Mr. Katz: But come right along.

Ms. Vinson: Thank you. My name is Kathleen Vinson.

My mother was Elise Meadows. Here's her photograph standing in front of Alpha 3 at Y-12. She worked as an outside laborer at Y-12 from 1981 through 1994 and died in 2016 of pancreatic cancer.

She stated in a NIOSH interview on September 5th, 2003, as part of her skin cancer claim, the following. I worked as a laborer doing every job inside and outside of every building. I was involved in accidents that involved radiation exposure and contamination at various locations and doing various activities. I worked in areas where all processes involving radionuclides and other materials were conducted.

I was not trained how to handle the contaminants I came in contact with. I was not given personal protection until the last two to three years I was there. My supervisor did not inform us as to the nature of the material we would handle, even when asked. My dosimeter was sometimes changed once per year.

The activities performed included cleaning of all kinds, mowing grass, cleaning sludge tanks and cooling towers, moving furniture, weed-eating, decontaminating the 3rd Street rolling mill, and asbestos work, among other things.

I worked as much overtime as I could which was always in the protected area, and I was not given additional protective gear to work there. I did not receive biological monitoring at any time while at Y-12.

In a statement submitted with her DOL claim on August 19th, 2015, it said she reported to Building 9201-3, or Alpha 3, and was assigned to go to any building or area of Y-12 where labor work was needed, including the protected area where contamination was highest.

She stated, I cleaned cooling towers several times per year for two to three weeks each time. I had to stand in the cooling tower pit and shovel accumulated sludge into 55 gallon drums and take them to the

West End Dump.

I was never given a respirator or protective gear. The sludge came into my boots and in contact with my skin and face. I cleaned sediment from the East Fork Pond using shovels and buckets, coming in direct contact with the mud which was taken to the West End Dump.

I worked on various rooftops sealing leaks with tar with no protection. I often cleaned machines in 9204-4 and 5 where work with radioactive material was conducted with cloths and Formula 409 cleaner.

As a survivor claimant in this case, I conducted additional interviews and research in order to understand the nature of my mother's work and working conditions. I obtained sworn affidavits from her co-workers stating she was working in contaminated conditions without protection.

I also interviewed dozens of co-workers who were afraid to swear statements but spoke to me frankly off the record. I was told the laborers were sent into dirty, contaminated conditions without protection because it was easier to clean up contamination that way than to have an incident report.

They were told to clean water, dust, sludge, dirt, smoke, vapor, mud, and many other unidentified substances without protection. They disturbed dirt out of the ground and off rooftops, they vacuumed and mopped water from spills, they cleaned known contamination ahead of other skilled trades, they hydroseeded the West End Dump disturbing the settled contaminants in the process.

Because she was performing support work, and had access to all areas of Y-12, it is known she came in contact with the most dangerous of radionuclides. While there are no records of where she went across the plant, it is known that support workers went everywhere.

It is highly likely, if not certain, that a person

performing labor of this kind would ingest, through a number of ingestion pathways, breathing into the lungs or swallowing into the mouth and digestive tract any of these radioactive substances.

Elise Meadows, as well as her co-workers interviewed, were not bioassayed at any time while performing labor work which brought them into direct external and internal contact with identified and unidentified contaminants while working at Y-12.

There are no records of this work, the nature of the work, the location or timing of the work, the materials involved, and the contamination received. Therefore, it is impossible to know with any certainty what radionuclides she was contaminated with and, as a result, an accurate dose reconstruction is impossible.

It has been known by NIOSH, DOE, Y-12, and any other relevant party that these workers were not given protective gear nor monitored adequately. Yet there is little credit given in the dose reconstruction process for this unique situation.

Building locations and presence of specific radionuclides in those buildings, ingestion pathways, specific clean-up assignments of unidentified material, lack of gear, missed dosimeter doses, are all misrepresented in the dose reconstruction methodology for these support workers.

The dose assumptions made by NIOSH in her dose reconstruction are inadequate and inaccurate from the standpoint of external dose, radiation type, dosimeter dose, unmonitored dose, missed dose, ambient dose, and unmonitored co-worker intake to accurately determine if Elise Meadows, or any other support worker, was contaminated while on the job, and if her skin and pancreatic cancer was at least likely as not to have been caused during her work there.

There was a review of the NIOSH Site Profile for the Y-12 National Security Complex by SC&A on

September 19th, 2005, in which every one of the points I have made here today are included.

It would be a profound disservice if NIOSH and the Board would fail to approve this petition for the workers at Y-12 in light of the known worker exposures that are not being addressed in the current dose reconstruction. Because an accurate dose reconstruction is not possible for the Class of workers in this support role due to inadequate external monitoring, no biological monitoring of any kind, and an egregious lack of records, it is essential these workers be included in the SEC Class through 1994. Thank you.

Mr. Katz: Thank you, Kathy. I have, let's see, so I've already heard from Stephen Hicks. I know they're here. And I've already heard from Terrie Barrie. So is this a separate comment, Terrie? Okay.

Ms. Barrie: Thank you again, Board Members. I just want to, this is a continuation of my comment, but it applies more to Rocky Flats. I was talking about my husband's work at Rocky Flats.

And I just wanted to mention, after reviewing them again over, you know, recently, that his termination records show that he has a systemic burden of uranium 235 in his kidneys. That radiation record was dated 1989.

And I found it strange since there wasn't supposed to be any HEU at Rocky Flats after 1963. And he worked there between '82 and '89. So I'm wondering how he got exposed to HEU when it wasn't supposed to be there. And I think that's important for the Rocky Flats, at least for the Site Profile.

And before closing, I just want to take a moment to remember Charles Saunders. He was the Rocky Flats SEC petitioner for SEC-192. He passed away on July 20th. And I just wanted to let everybody know that I was honored and proud to work with Charles, and that I will miss him, and miss his humor, counsel, and guidance in the attempt to still expand the Rocky

Flats SEC petition.

Thank you again for letting me submit these comments and to Louise Presley for making the popcorn. Thank you.

Mr. Katz: And thank you, Terrie, for that notice about Charles Saunders, appreciate that.

I have no one else listed, but if there's anyone else in the room who would like to comment, now is the time, or we'll go to folks on the phone. Yes, come right up. You're welcome. Just please identify yourself at the start.

Mr. Agee: My name is John Agee.

Mr. Katz: Come right up to the mic please.

Mr. Agee: Oh, okay. Is that better?

Mr. Katz: Yes, it is better.

Mr. Agee: Yes. My name is John Agee. I'm from Oak Ridge, Tennessee. And over the last 30 years, I've worked with plant workers. The last probably 10 to 15 years I've helped a number of them on the EEOICPA claims. And part of that, of course, involves NIOSH dose reconstruction.

I've also been familiar, just being a local attorney, I try to help whoever I can with the non-DOE workforce. And I can tell you that there are some distinct differences in terms of disease processes between DOE plant workers and non-DOE plant workers.

One area that is distinctly different is in the area of cancers. There is, just based on my personal observation as somebody with boots on the ground, talking with people on a daily basis over a 30-year period, much higher incidence of cancer among DOE plant workers than non-DOE plant workers.

Now, the significance of that is several-fold. One being that with the NIOSH dose reconstruction, folks

who go through that don't understand much at all about it. And I'll admit there's a lot that I don't understand, and I try to read as much as I can about it. It is beyond most people's comprehension.

And I personally have issues with the methodology. But under the program requirements, we can't question NIOSH dose reconstruction methodology. And that's the law, that's the rules. We, in Oak Ridge, try to follow the rules, and we expect the program to follow them.

This program is an excellent program. It's done wonders for people in the area, families. It's relieved a lot of burdens, it's helped a lot of people. But in the area of cancer, in reconstructing dose, I'll have to say that there is serious doubts among people in the area as to whether that is a fair process.

And some advances have been made, for example, treating the Y-12 folks more equally. It started out, I think, K-25 had the SEC status. It's been expanded to help the Y-12 people. I listened to Mr. Hicks. And Mr. Hicks is just a champion, an advocate, for people who have worked at Y-12.

And I find myself in agreement with him that -- and it's great what you've done here today to expand the Class up through 1979. But I think that we really need to keep an open mind to expand it further, because people who are afflicted with cancer, their life expectancy is much shorter. And it's a lot harder for survivors. Children of plant workers who've passed from cancer or at a disadvantage when it comes to filing claims under what's called Part E.

So this concept of awarding, making awards for radiogenic cancer are very, very important to the worker, to spouses, and to children.

And I think that when one looks at the reality of what is happening in Oak Ridge, that we need to try everything that we can to expand the SEC status so that claimants and their families are not put in a situation where they're blinded by the science of it,

and they don't understand denials, and that, you know, we as a community in the program recognizes the fact that there's no safe level of radiation exposure.

So, you know, my comments generally are that anything we can do to expand the SEC Class, I think that would bring great credibility to the program, not only to the radiation aspect of it, radiogenic cancer, but to the program as a whole.

And the purpose of Congress in enacting the legislation for the plant workers, the sick workers, it's remedial in nature. And it's a program where I think it behooves people to give the benefit of the doubt to the workers.

And when these folks say that their particular circumstances have not been taken into consideration, I think they're entitled to be believed on that. I hear that so many times.

So just in summary, it's a great program. You all do great work. Your minds are great big brains that, you know, I can't understand some of the concepts. But I know that people in Oak Ridge suffer greatly from cancer and other illnesses. And there are many.

And I want to thank you, and I want to encourage you to do everything you can to help these folks by expanding the SEC status to the limits that you're able to. And thank you, Mr. Hicks, for your advocacy.

Mr. Katz: Thanks for those comments. Anyone else in the room who wants to comment?

Okay, let's go to the phone line. And it's open season on any facility, not just Y-12. People on the phone?

Mr. Frowiss, Sr: Ted?

Mr. Katz: Yes.

Mr. Frowiss, Sr: Al Frowiss.

Mr. Katz: That's Al Frowiss, Sr., yes?

Mr. Frowiss, Sr: Al Frowiss, Sr. Ted, the sound is almost non-existent; it's almost not worth listening. But I did want to comment. Dr. Hughes who presented the Y-12, I think, in Newport -- or I mean in Los Angeles, she talked about a bunch of people or a contingent of people that worked at X-10 who were actually assigned to Y-12.

And I've noted that it's awfully difficult to find evidence when I file claims for these people that worked in the biology division, you know, located at Y-12. Because their personnel records show that they were at X-10.

And if there's anything that can be done in your, you know, staff research, it would be very helpful to kind of identify all those people somehow into the record so that when they file claims they get credit for being at Y-12. And that's all I have to say today. Thank you.

Mr. Katz: Thank you, Mr. Frowiss, for that comment. And I'm not sure what can be done, but I think the program, if it has helpful information to give to DOL on that count, that's a great idea.

Member Richardson: It's ringing a real bell with me that we ran into this issue of there being a lack of clarity and a records gap. I can go back and look at that, but that's a true issue for sure.

Mr. Katz: Okay, thanks, David. Okay, thank you. And next, do we have someone else on the phone who would like to comment?

Mr. Sorrels: Sure. Earl Sorrels, here.

Mr. Katz: Earl, can you spell out your last name, please?

Mr. Sorrels: Yes, S-O-R-R-E-L-S.

Mr. Katz: Thanks. Earl, go right ahead.

Mr. Sorrels: And I'm currently the Radiation Safety Officer out here at Santa Susana. I've been working out here for about eight and a half years now. So I

want to offer up myself for information about the current condition of operations out here.

And historically, I'm getting a better feel for it, but I'm also in the supplemental monitoring program. So you guys are important to me as well.

I've got about a 40-year career, and the person that was speaking about Rocky Flats and highly enriched uranyl nitrate, hey, I knew that stuff was there through the end of the 90s. I worked as a radiation safety supervisor out there when I was working on getting rid of the Critical Test Facility, writing up the health and safety plan for that.

So I know I've had it out there at that point in time, through the end of the decade, if there's any help in that. But I offer myself up for any information you guys might need about stuff, because I've been just about everywhere out in the complex.

Mr. Katz: Earl, thanks. Can I ask, have you already ever spoken to anyone at NIOSH, at the program?

Mr. Sorrels: No, I have not. Well, not pertaining to this, no.

Mr. Katz: Well, the only reason I'm asking is because if you haven't, and you want to send your contact information, it might be very useful to our Board contractor as well as NIOSH. And we could learn a little bit more about what your history at different facilities has been and how that might be useful.

So are you familiar with the NIOSH webpage of this program?

Mr. Sorrels: Yes, I am.

Mr. Katz: Okay. Well, there should be contact, there's contact information on there where you can submit whatever information you might have, or a question, or what have you. If you would just submit your contact information and a reminder that you'd spoken at this meeting, then someone would have

your contact information and could follow-up on that.

Mr. Sorrels: You bet.

Mr. Katz: That way you don't have to do it on the phone here for the whole public. Thank you.

Mr. Sorrels: Yes.

Mr. Katz: I appreciate that.

Mr. Sorrels: I don't have anything else.

Mr. Katz: Yes, thank you. Thank you very much. Other members of the public?

Okay, it is 5:50, so we are still a little early. And I promised on the phone that the public comment session would at least go until 6:00. So we'll keep the lines open. And I'll ask again when it comes to 6:00.

But otherwise, I think folks in the room can mill about or whatever. And I'll check in on the line at 6:00. So, I mean, it's ten minutes away.

(Whereupon, the above-entitled matter went off the record at 5:50 p.m. and resumed at 6:04 p.m.)

Mr. Katz: Hello, can everyone in the room please be silent for a bit. I just need to check in. Thank you, my gavel.

Okay. So we have had quite a bit of public comment in the room and on the phone earlier. But we finished before 6 o'clock. So I just want to check in with people on the line now that's past 6 o'clock. It's 6:05. Is there anyone new to the line, member of the public, whatever, who would like to comment, who hasn't commented yet, hasn't had the opportunity?

There's someone in the room that want's to comment. And that's fine too. Okay, come right up and please identify yourself.

Ms. Buttram: I didn't bring any prepared comments, but I've been prompted by what I've heard today. My

name is Mylissa Buttram. I worked at Y-12 from 1984 to 1994. And I worked in the protected area nine out of those ten years.

And similar to the person that was referring to their mother who was a laborer, the job I had was, you could probably only be this at Y-12 and a couple of other places, a Weapon Material Controller. And I supported the production, engineering, and scheduling by making sure parts got where they were supposed to be in their respective schedules.

And I did a lot of other assignments. And I believe that there is a concern that I want to amplify about, like, my employment history at Y-12, I believe, is reflective of my pay points. Like, I was assigned to Building 9201-5. I mean, my pay point was that, but I did assignments all over the west end of Y-12.

So I don't think there's an accurate account of where I actually worked. And I did get denied when I applied several years ago. My dose reconstruction came back at 32 percent, and I was really hopeful.

Now that I've had cancer, breast cancer, in 1995 is when I was diagnosed. I was 34 years old, working at Y-12 for ten years at that time, which there is a gestation period. So I was denied back then.

I've recently filed to reopen my claim. But with this petition, I was very hopeful that the time up to '94 would be covered. And frankly, yes, a chunk of change would be helpful, but I've had a recurrence. I've had three recurrences, just had radiation on my jawbone, lost my taste buds and all that, last Christmas period.

And the cancer morphed to being estrogen receptive. And there's a lot of technicality to the diagnosis. But the point I'm making is that the longer I go, the more likely it is I'm going to die from this.

And the more peace of mind, you know, it's not just, oh, it's a program out there, I'd like to have it but, you know, I want the coverage that I could get, you

know, yes, I want the compensation.

But more important, the older I get, the more down this path I go, and the more times, I'm told, you know, you're probably going to die from this. I'm 58 now.

My father received the compensation, well, we did after he died of lung cancer from working at Y-12 in the press area.

And just a couple of more things I want to say that I don't think are reflective, but I keep running up against a brick wall. One of the assignments, a special assignment I got as an up and coming career, I grew up at Y-12, basically, then I went to ORNL for 15 years.

But I was assigned to clean up a hold for future use warehouse. Now, I had material handlers that, you know, worked under my directive. But I was crawling around on skids of parts, machine, all kinds of things were sent to this warehouse, because either they'd been ordered, and they were no longer useful, they might not have even worked to begin with, machines, equipment, parts, materials, supplies, chemicals, freezers, locked up freezers that contained thorium, thallium, all kinds of stuff. And that was just a big dumping ground. And so my year that I spent there in, like, 1989, I feel was very relevant to my cancer diagnosis.

Also, just a point that I don't believe gets captured, in 1987 there was a strike at Y-12. I was a salaried employee. And I accepted a position during the strike to be a utility operator. Guess who didn't get any training to be a utility operator, somebody that went around checking the steam pipes in Beta 4, all kind of buildings all over the west end.

So, I mean, the longer this goes, I just don't think anything can be, I don't believe my reconstruction was adequate that was done, that arrived at 32 percent. And now that there's a lot more uncertainly being unveiled, I mean, there's more and more. It's

like, well, we really can't do that, we're trying, you know, accepting things.

And I do agree with the comment about K-25. I know people that just blew through K-25 for a few months, and they received the compensation and Y-12 has been treated like stepchildren around this.

So I have strong feelings about my own case. And I'm only speaking to myself. And I hope that some other consideration will be made to move quickly on expanding this, you know, even reconsideration to do this SEC as it was proposed to '94.

Because that's when they closed down operations. And I was working in A Wing at that time, in 9212, observing people in the glove box developing training material. So that's my story, and I'm sticking to it.

Adjourn

Mr. Katz: Thanks for your comments.

Okay, last chance, anyone on the phone? More comments? Going, going, gone. Okay, we are adjourned for the day. Thank you, everyone for participating, Board Members, staff, members of the public.

(Whereupon, the above-entitled matter went off the record at 6:11 p.m.)