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

convenes the

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ADVISORY BOARD ON

RADIATION AND WORKER HEALTH

VOL. II

DAY TWO

ABRWH BOARD MEETING

The verbatim transcript of the Meeting of the Advisory Board on Radiation and Worker Health held at the Four Points by Sheraton, Denver, Colorado, on April 26, 2006.

C O N T E N T S

April 26, 2006

TRANSCRIPT LEGEND

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-- "uh-huh" represents an affirmative response, and "uh-uh" represents a negative response.

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P R O C E E D I N G S

(8:45 a.m.)

WELCOME AND OPENING COMMENTS
DR. PAUL ZIEMER, CHAIR

DR. ZIEMER: Good morning, everyone. I'd like to call the meeting to order. I'll start with the usual reminder to register in the entryway -- if you're a visitor or Board member or staff member. Please make sure we have a record of your attendance here with us today.

Also I'd like to remind members of the public that there is a public comment session scheduled for this evening. It will begin at 7:00 p.m. If you wish to make public comment, please so indicate in the sign-up sheet, which is also in the entryway. That public comment period is listed on the agenda as being 7:00 to 8:30. We will obviously try to accommodate everyone that wishes to speak, even if it does go a few minutes past 8:30 -- a few hours past 8:30, whatever it may...

But in any event, please let us know if you would wish to make public comment.

I want to check -- we have Mr. Presley, who

will be with us at least part of the time by phone, and Robert, are you on the line?

(No response)

Okay. I thought I heard something a moment ago, but --

DR. WADE: Dr. Lockey possibly is.

DR. ZIEMER: Dr. Lockey, are you on the line?

(No response)

Okay, neither one so far, but they may be joining us.

DR. WADE: Is anyone on the line?

MS. HOMOKI-TITUS: Dr. Ziemer, this is Liz Homoki-Titus with Health and Human Services. There are a number of people on the line.

DR. ZIEMER: Okay, hang on just a second. We need to turn your phone volume up here so we can hear you.

MS. HOMOKI-TITUS: Okay.

MR. PRESLEY: I'm still here, Liz.

DR. ZIEMER: Okay.

MR. PRESLEY: I couldn't hear them. For some reason you can't hear Paul.

DR. ZIEMER: Okay, how's that? Robert, welcome. We're just getting underway here. Dr. Lockey, are you on the line, as well?

(No response)

Okay. Apparently just Mr. Presley so far.

MR. PRESLEY: Hey, Paul, can they turn the gain up on your volume on the phone? I can barely hear you.

DR. ZIEMER: Okay, how is this right now? Is this --

MR. PRESLEY: It's better.

DR. ZIEMER: Is that okay?

MR. PRESLEY: Yeah, that's better.

DR. ZIEMER: Okay. Thank you very much. Dr. Wade has a few remarks as we get underway this morning, as well.

DR. WADE: Just a couple of sort of housekeeping items. Relative to the agenda, yesterday we did not have time for the presentations by SC&A on petitions related to Y-12 and Rocky Flats. What we'll do is we'll begin each of those sessions -- Y-12 this afternoon and Rocky Flats this morning -- hear-

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DR. ZIEMER: No, not -- tomorrow. Rocky is tomorrow morning.

DR. WADE: Rocky is tomorrow morning, I'm sorry. I'm sorry. Y-12 this afternoon, Rocky

tomorrow morning, hearing about -- hearing from SC&A on those -- their reports, and then we'll move into the regularly scheduled agenda item. This will give us a little bit of -- of coincidence in terms of the discussion. Also tonight's public comment session is not only reserved for people who want to make comments on Rocky Flats, but anyone who wants to make comment. And you know, it could well take us well past the -- the time, but I know Dr. Ziemer's always been most gracious in hearing from everyone who wants to be heard and we'll certainly pursue that this evening.

MS. KARO: (Via telephone) Dr. Ziemer, I would like to introduce myself. I am Daniella Karo. I'm the petitioner for the Pacific Proving Ground.

PACIFIC PROVING GROUND (PPG) SEC

DR. ZIEMER: Very good. Welcome, Danielle. We're just ready to get underway in fact with the Pacific Proving Ground SEC, so we welcome you aboard --

MS. KARO: Thank you.

DR. ZIEMER: -- and we'll be calling on you in a few minutes to make comments, in fact. So

we'll begin our discussion of the Pacific Proving Ground SEC with a presentation by NIOSH, and that will be given by Dr. Neton. Then following that, we'll -- and a chance for some discussion, we'll have a presentation by Danielle, representing the petitioners. So Dr. Neton.

(Pause)

Stand by, we're having some mike problems here.

(Pause)

PRESENTATION BY NIOSH, DR. JAMES NETON, NIOSH

DR. NETON: Thank you, Dr. Ziemer. It's my pleasure to present to you today an update on the status of the Pacific Proving Ground SEC petition that we discussed at the January meeting of the Advisory Board in Oak Ridge. At that meeting the Advisory Board asked NIOSH to follow up on a few issues related to the petition. Specifically, those were to follow up with the Defense Threat Reduction Agency to determine the status of their closure of items related to the National Research Council review of their program from several years ago. Secondly, the Board wished to provide -- obtain some further information on the exposure

characteristics of the covered population of the Pacific Proving Ground. It was not obvious from our presentation the type of work activities that were involved with the -- this -- this class of workers, as well as the -- as the duration of employment. That is, you know, how many of these petitioner or how many of these class of workers would -- would actually meet the 250-day criteria that we proposed in our -- in our evaluation report.

And third, to investigate a little bit the issue related to if it were 250 days, how is that relevant to a workforce who was essentially there 24/7 during the operations. I think we discussed that issue a little bit yesterday, but we'll certainly be willing to engage in further discussions on that if the Board desires.

I would like to point out, as we discussed last -- at the last meeting, that the -- the Defense Threat Reduction Agency program that we're going to talk about is -- is somewhat different -- structured somewhat differently than -- than the -- than our program, the Energy Employees Occupational Illness Compensation Program, and

that is that the military personnel stationed at the Pacific Proving Ground are -- their cancers are considered presumptive, so there's a presumptive class of workers there, and the dose reconstructions that the Defense Threat Reduction Agency does is for the non-presumptive classes. So they're essentially already covered under -- under -- under the provisions of their Act, and in fact there is no cash award of this $150,000 like there is in our program. They're essentially evaluated for disability issues under the Veterans Administration. I just want to make sure that people were clear on that distinction.

Before I get started in detail I thought I'd just take a few seconds to briefly go over some of the ground we covered last week (sic) to refresh people's memories as to -- as to what we're talking about with Pacific Proving Grounds. There was a nuclear test site in the Marshall Islands, of course, that consisted of four separate areas -- Enewetak Atoll, Bikini Atoll, Johnston Island and Christmas Island -- and there were 105 total detonations that occurred at Pacific Proving Grounds starting

with Operation CROSSROADS in 1946 and ending in 1962 with Operation DOMINIC. And as you can see from the far right-hand column of the slide, there were various types of detonations, whether they were airbursts, from a tower, surface bursts -- some of them were underwater. So a wide variety of different activities were conducted with nuclear weapons during this period.

This is the class of employees that we proposed, which was all DOE, DOE contractors who worked during the duration of the Pacific Proving Ground test shots -- that is from 1946 to 1962 -- and the stipulation that those who worked there who were monitored or should have been monitored for exposure to radiation as a result of nuclear weapons testing.

I'd like to clarify a little bit about what we mean by should have been monitored. We mean this in the context of current thinking of monitoring status, not monitoring status at the time of the shots. If, for example, one looks at the current Department of Energy regulation for monitoring status, everyone who has the potential to receive 100 millirem of exposure

in one year would be considered a person who should be monitored. And that's -- when we say that, that's what we're -- that's the context in which we're speaking.

We looked at a number of resources, if you recall from the January meeting, and we could find no evidence that we could do dose reconstructions for internal exposures in these folks. There were reports that limited bioassay existed -- well, first let me go back and say that we found evidence that there were sources of internal exposure -- obviously, there were nuclear weapons that were detonated in the area. These -- the cohort class that we're speaking of were positioned about the criticality event, but not in har-- not very up close and personal that you would receive a dose equivalent to something as a result of a criticality incident that was an unplanned activity. In fact, almost all of these workers were monitored, so we have very good evidence, we believe, of what their external exposures were. But we lack sufficient bioassay data. We cannot reconstruct their internal exposures to any extent.

There were reports from the DTRA program and elsewhere that bioassay samples were sporadically taken. The ones that we -- we heard of were measured on board a ship, sort of in a makeshift fashion, and even those results we couldn't find evidence of -- of the documentation for those results.

There were some air monitoring samples taken, but they were by and large taken to track the plume of -- of the -- of the detonation and not really for purposes of reconstructing exposures to the -- to the workers at the facility.

So we determined it's not feasible to estimate the internal doses with sufficient accuracy. And when NIOSH makes a determination it's not plausible to put an upper bound on the -- an exposure pathway for a class of workers, we make the determination that the health of the employees may have been endangered.

As I mentioned, the evidence reviewed indicates that some had -- workers had accu-- accumulated internal exposures through episodic intakes of radionuclides. So what we're really saying here is not exposure from a criticality event, but really the indirect exposure as a result of

the fallout of the radioactive materials, direct breathing of that fallout while it was occurring, and -- and breathing of the fallout from resuspension due to activities after -- after the material was deposited on -- on the surface.

This has a lot of -- a significant bearing for the cohort that we're talking about because, as you'll see later in our presentation, many of these workers were positioned there for -- for numbers of years. These were not short-term, go in with an instrument package, come out. Some did do that, but a large percentage of this cohort spent years there working on these islands. So from that determination, we -- we qualified this -- recommend this class based on the 250-day default scenario for SEC eligibility.

And the proposed class ended up being -- well, exactly what I just said, workers from 1946 through '62 who were monitored or should have been monitored.

Now this slide just summarizes what I said in the beginning. We are following up with Defense Threat Reduction Agency to develop --

see where they are with rele-- relative to their issues with the National Research Council, and we did some evaluations of the work and work patterns of the workers, and we attempted to address the monitoring status of the workers and the appropriateness of 250 days.

DTRA -- at the last meeting, if you recall, Dr. Paul Blake provided a presentation where he outlined their strategy to closure of the items of the National Research Council, and he indicated that he would send NIOSH an update on the documents under development and -- as well as an estimated completion time of their status. I have listed here the -- there's seven documents that are currently being worked on by the Defense Threat Reduction Agency, and all seven of these documents are related to the issues raised in the National Research Council report. The first one, screening doses for induction of cancers calculated with the Interactive RadioEpidemiologic Program, that one was -- as indicated by Dr. Blake in his communication to us -- had a proposed publication date of May 6th of this year.

The second document is particularly relevant. It's a bounding analysis for the effects of fractionation of radionuclides in fallout on estimation of doses to atomic veterans. In our minds this was one of the critical issues that was raised by the National Research Council. The Defense Threat Reduction Agency program assumes a uniform plane or deposition of fallout from the detonations. And in that way, if you know -- all you really need to know is what the external exposure was, and then one can sort of estimate what -- possibly what the internal exposure was. The NRC report actually suggested, though, that things don't happen that way. There are fractionations of the radionuclides in the mixture away from the fallout pattern, and they -- they suggested that DTRA should investigate this. And I think this is the -- the second document is what that's trying to accomplish.

The revision of FIIDOS is -- is a revision of the -- I forget what the acronym stands for, but it's the Defense Threat Reduction Agency's program -- computerized program for analyzing internal -- the doses received from fallout.

It essentially takes a -- if you recall -- a film badge result and attempts to estimate what the internal dose would be based on external exposure.

There's seven total publications here. Those are the first three, and those were the ones that had the closest-in publication dates. The fourth one is evaluation of inhalation doses in high-resuspension scenarios. This also has relevance to our ability to reconstruct doses for PPG -- and NTS workers, for that matter -- and that is when a detonation would go off it would also tend to bring with it fallout contamination from previous shots resuspended into the atmosphere, which created an additional exposure pathway that had heretofore been unrecognized I think, or not sufficiently accounted for in the Defense Threat Reduction Agency's documentation.

And there's a special study that is underway for exposures to old fallout fields for DESERT ROCK trainees at NTS. This is related to an issue raised by the NRC about an evaluation of reliability for this model. It was not a -- necessarily a finding on their part. It was a

suggestion by the NRC that the reliability of this method -- that is, taking the film badge and interpreting or interpreting that as to what internal dose could be -- is really scientifically possible but not been empirically demonstrated. So the NRC suggested that they go and obtain some fallout samples, even contemporaneous samples, and try to go backwards and model this and see how well it works. I think this study may shed some light on that issue, although in communications with DTRA they have no detailed plans in the near term to -- to complete a full-blown evaluation of the reliability of the model at this point. There are a number of issues preventing them from doing that. Most notably, I believe there are classification issues that are standing in the way.

And the final document that is -- or not the final, but another document intended to be completed is the -- how to estimate skin doses from, you know, dermal contamination. That is the settling of fallout on the skin of the workers and what the doses are from that pathway.

And the final one that's projected to be completed in November '06 is consideration of estimates of upper bounds of neutron doses for these -- for these veterans.

So you can see that there -- there are seven documents that DTRA has underway in various stages of completion ranging from May through November of this year.

Just before the Board meeting we wanted to make sure where they are with these documents to get a better snapshot as to what we could expect to see from them in the near term, and we sent a letter over to them and particularly were inquiring about the first three since they were the closest-in for publication. We thought we might be able to obtain draft copies of these documents, review them, see -- review them for applicability to our -- our situation.

The documents have been drafted. They are currently under various stages of internal review within either DTRA or SENES Oak Ridge, which is their contractor for a number of these documents. They are not ready for public release.

In fact, it's DTRA's policy that they don't

release pre-decisional documents to the public. We received a letter just Friday from Dr. Blake and I'd just like to read -- this -- this should be available to the Board, this letter from DTRA dated April 21st, 2006, and I believe there are also copies on the table for the members of the public.

I'd just like -- the one paragraph, after we -- we -- we requested, you know, a status update. Dr. Blake responded that, I quote, "After internal technical review of these documents, NTPR plans to solicit peer review from the Veterans' Advisory Board on Dose Reconstruction prior to additional external review and/or final publication. It is not the policy of my agency to release pre-decisional documents so I must regretfully decline your request for draft copies." -- close quote.

What that indicates to me is that even though these publication dates are -- are valid, I mean they do -- they have published -- draft documents, NIOSH will not be able to obtain documents for some time into the future. It is our understanding that their advisory board is not planning on meeting until July, so that

would be the earliest that the advisory board could provide input and comments on these documents, and we can't speculate as to how long external peer review would take after that, but it would certainly take some time, possibly months, after that. So we're looking at quite an extended time period for NIOSH to obtain additional documentation on how to -- how these may be applicable to our program. Okay, a little bit about the work histories and what happened to folks at the Pacific Proving Grounds -- and this was actually somewhat surprising to me when I -- when we started digging into these issues. We went and looked at every single case we have in our files for Pacific Proving Ground claimants. And at the time we did this analysis, I believe this was in February sometime, we had 600 -- 69 claimants -- cases forwarded to us by the Department of Labor. I think at the time we presented this in January there were 64, so you'll see a slight disconnect in the numbers. Interestingly, the average length of employment at the Pacific Proving Ground -- that is stationed on the islands -- was 393 days for

those claimants. I'll have to caveat that slightly. In looking through, there were a couple claimants who had stayed durations in excess of 25 years. I questioned the validity of that and I didn't use those in the analysis. I have to go back. I suspect what happened is there was some NTS -- Nevada Test Site -- exposures included in there. Although I did go through and look at a large majority of these cases, and the 393-day average -- I did confirm that that did constitute Pacific Proving Ground employment. I was concerned that it may be that a person had worked at NTS or Lawrence Livermore, was deployed to PPG, and that was all being aggregated into one number. It did not appear to be the case from the number of cases I looked at.

The range of employment duration was from one day to greater than 2,500 days, and approximately -- almost half of the cases that we have in our possession have a covered exposure duration of greater than 250 -- equal to or greater than 250 days.

In addition to this, which is somewhat interesting in light of what we're going to be

talking about in the next hour, is some of these cases have additional exposures at Nevada Test Site. There's a certain cadre of workers that go around doing these things, and if you're not investigating weapon detonations for the Proving Ground, you may be working at the Nevada Test Site.

For those of you who are more graphically inclined, I put together a -- I love cumulative probability distributions, and -- of course, as everything in occupational exposure environments fits a lognormal cumulative probability distribution, no surprise there. And I just highlight it here on the graph, a little arrow pointing to the 250 days exposure duration, which is right around the median value of the population, which is -- which is somewhat surprising to me, to be honest with you, when I -- when I figured this out. And, again, lognormally distributed, half -- more than half 250 days, almost more than half.

We also took a look and went through every Computer Assisted Telephone Interview that we had 'cause all of these workers, of course, either survivors or the workers themselves,

were interviewed. I think there were a couple that declined interviews, but almost all had interviews in their case file. And the variety of responses of employment -- by all accounts, and I went through and read some of these myself, and we have a very nice summary sheet that were prepared -- I didn't distribute it because I was concerned about Privacy Act information in here, but I -- I've summarized a few job categories just to give you a flavor for the range of -- of occupations that were present on these islands.

They range from heavy equipment operator, which you'd expect, there's a lot of trench operations, there's buildings going up, buildings being torn down to support these detonations; divers to pull undersea cables. Surprisingly there was a dentist. He spent several years there. He was the only dentist on the island and --

MS. MUNN: That makes sense to me.

DR. NETON: -- I guess given the number of people that were there over the duration that they were there, they needed some medical care. There were first aid folks at that site, those

type medical people. Instrument technicians that you'd expect, laborers, physicist, cafeteria worker, so a wide variety of ranges of employment on these islands. And many of these reported combinations of work and recreation activities in their CATI. If you looked at what they were doing, of course they worked and worked long days, but they were also swimming in lagoons, eating the local vegetation. You know, they were inhabitants of the island, essentially.

Ninety percent of these cases were -- had external dosimetry results in their case files, so it is our belief, and I -- that almost all these workers had external dosimetry monitoring. The question is, given the scenarios of the work environment, were these workers actually wearing these dosimeters 24/7 for greater than 393 days -- two years, five years? I suspect they weren't. I mean you don't wear your TLD to bed and that sort of thing. And if you're going to go out snorkeling, that -- so even though we have external dosimetry on these which we believe can put a bound on their -- their exposures, it

brings into question, in my mind at least, the applicability of the DTRA program where, if you recall, you really need to know the external dose to the workers to come up with any sort of reasonable assumption for the internal exposure.

MS. MUNN: Uh-huh.

DR. NETON: Lacking a good external result number from a badge, one would have to know a detailed time motion study. Because again, with DTRA, if you knew where a person was positioned in time and space over four, five, six years, you could theoretically use that approach as well. And unlike the military, these people are not tracked with detailed logs of -- of where they were -- where they were positioned over these time periods. So you know, I don't think that -- that pathway -- that's a viable option for us to attempt to reconstruct these doses.

I just sort of looked at these job categories and tried to collapse them into four major grou-- they sort of fell into four major groups, in my mind. I'm sure I could do a more fine structure, but I really wanted to get a

sense for what were the categories of work that people were doing, and interestingly enough, they fell into essentially three categories. If you combine administrative and unknown on the far right-hand side there, it's about a third apiece. A third of workers that were doing building trades activities or what I would call maintenance, so folks supporting the infrastructure of the island and the building and demolition activities. And then there was about a third of the workers were engaged in what I would call the scientific/technical aspects of the operation. That is preparing for the shots, monitoring the shots, that sort of thing. And then about a third of the folks were either in the administrative category -- project coordinators, managers, those type of functions -- or we just have no knowledge -- 13 percent we have no knowledge of what their job category was.

I think that -- that concludes what we were able to discern between January and now. I'd be happy to answer any questions.

DR. ZIEMER: Okay, thank you, Jim. We'll open the floor for questions. Let me begin by

asking you to clarify on the -- I think you characterized some of the early inhalations as episodic, in a sense, and what -- what implication does that have for these folks that are on the less-than-250-day category as far as internal dose is concerned?

DR. NETON: If a class were added as proposed, anyone with less than 250 days exposure at the Pacific Proving Grounds would have to be -- have their dose reconstructed by NIOSH. If we couldn't reconstruct the internal dose, which we're saying we can't, we would reconstruct as much dose as we could, which would be any external dose, medical dose -- you know, the remaining pieces that we could -- we could do to figure out what their exposures were.

DR. ZIEMER: Well, let me ask it in a somewhat different way, as well. Is there any indication of what kind of an internal dose someone might get, even in a sort of a theoretical episodic event? I don't have a good feel for what kind of an intake one could have, and this would presumably be early on with the -- the fallout with a lot of the short-lived stuff and so on...

DR. NETON: It really depends, and this is one of the issues, on the weather pattern, what happened, the type of shots --

DR. ZIEMER: Yeah, but --

DR. NETON: -- but the doses are not in the -- the extremely high range, I guess, if that's what you're asking.

DR. ZIEMER: Yeah, that's really what I'm asking.

DR. NETON: Not acute doses.

DR. ZIEMER: The episodic inhalations --

DR. NETON: Episodic, right.

DR. ZIEMER: -- result in doses that were --

DR. NETON: Sufficient -- sufficient to endanger their health, but not in the scenario where you're in the hundreds of rem range.

MS. MUNN:

DR. NETON: Lower ranges of rem highest.

DR. ZIEMER: Dr. Melius.

DR. MELIUS: Yeah, just following up on that in two ways, I guess, though, there were -- given the number of tests that were done, it's certainly possible for someone to have multiple episodic exposures, which makes this more -- I guess more complicated to -- to -- to address

and so forth. What are the criteria that -- for the presumptive cancers in terms of any time limit, whatever, that would be applied by -- under the DTRA program?

DR. NETON: I don't know the answer to that. What, if there is a -- a presence time DTRA?

DR. MELIUS: Presence, yeah.

DR. NETON: Larry Elliott, my boss, says presence, and I think that's right.

DR. ZIEMER: Dr. DeHart?

DR. DEHART: Do we have a feel for how well the environmental doses have been monitored and documented in those sites over time?

DR. NETON: There certainly have been a number of environmental assessment of the islands in more recent history, but if you remember -- if you recall, a lot of these were short-lived radionuclides, you know, would not be present in the environment -- temporary -- temporary period, but I know a lot of work has been done there, but I'm not familiar with the extent of it. SC&A I know has a lot of knowledge of the environmental operations at the -- at the islands, but I don't have first-hand knowledge.

MR. PRESLEY: Hey, Jim --

DR. DEHART: Would one estimate dose, comparing it to where we are, Denver, where we have a higher radiation exposure at 5,000 feet, on those islands -- any -- any feel at all as to isotope contamination and radiation levels and living in it, it's 24 hours a day.

DR. NETON: During the time frame that we're talking about, we have no evidence of those values.

DR. ZIEMER: But certainly the islands that got direct fallout, such as the -- was it Ene-- no, it was Rongelap, I think, they ex-- excavated the island -- they evacuated the -- all the inhabitants.

I think Dr. Melius was next, and then Dr. Roessler.

DR. MELIUS: Yeah, I'd like to actually follow up with Roy's point. The last -- at the last meeting when we discussed this, we talked about possibility of adjusting the 250 days to take into account the residence and now -- that actually their work days were -- were much longer. Has that issue been explored? I mean you seem to be indicating that 250 days of work was required, and I thought that's the -- the

way that you went through the -- the employment histories was 250 days, assuming an 8-hour day, I mean for --

DR. NETON: Yeah, that's correct.

DR. MELIUS: -- calculation purposes.

DR. NETON: We thought about that and I believe we discussed this a little bit yesterday, and it's more in the policy area and I'd like to refer that question to Larry on that.

DR. ZIEMER: Yes, this was the issue discussed yesterday a little bit. It's the -- it's the idea of -- are you talking about 250 8-hour days and do you do a weighted --

DR. NETON: Right. Yeah, I think I understand. For example, if one were to --

DR. ZIEMER: So if you were there --

DR. NETON: -- assume 24/7 --

DR. ZIEMER: -- 24 hours a day, then you've got --

DR. NETON: -- you might end up with 80 days or something like that.

DR. WADE: We're not prepared to speak to it from a policy point of view. I don't have my hands on the data and, you know, Dr. Melius's question is going to what the data would show.

We'd have to look into that, but you know, in discussion with the Secretary and his advisors and the legal team, the rule itself talks about 250 work days. It does not define work days. The Secretary would certainly be willing to accept a recommendation -- to consider a recommendation from the Board that attempted to deal with this issue of work days being eight hours versus a situation where people were resident there. And if the Board wanted to make a recommendation based upon that logic, that science, the Secretary would be more than willing to receive that recommendation and consider it. So there's nothing that precludes the Board from taking that into consideration as it would like and making its recommendation to the Secretary.

Similarly, if you look at the other provision for health endangerment, it goes to -- and I'll read -- for classes of employees that may have been exposed to radiation during discrete incidents likely to have involved exceptionally high-level exposures such as nuclear criticality events, or other events involving similarly high levels of exposure.

So again, I think there is room for the Board to consider this issue of a recommendation different than the NIOSH recommendation as it relates to the health endangerment consideration. My only caution to you is if you do that, make sure that your recommendation to the Secretary is clear and based upon foundation, and -- and I think it's open for the Board's consideration.

DR. NETON: Aside from the policy issue, I mean I have this cumulative frequency draft which, if you look at, if one were to make some assumption that 24 hours a day were going to be considered a work day and that might put their days of covered exposure down somewhere around 80, if one extrapolates off this graph it looks to me like it might double the size of the covered population -- or move it down to around 20 -- 80 percent of the workers would meet that -- 80 percent of the cases would meet that requirements. That's just a rough -- you know, off a graph, but certainly increase the -- expand the size of the covered -- covered class.

DR. WADE: I do think -- if I could have one

more comment. I do think that -- at -- at the last discussion Robert Presley, who was -- who has lived through some of these things, made some comments, and I would like to be sure that Robert's on the line and -- and if he has comments to make that we could hear his comments.

MR. PRESLEY: Yes, I would. Can you hear me?

DR. ZIEMER: Yes, go ahead, Robert.

MR. PRESLEY: Can you hear me?

DR. ZIEMER: Yes, go ahead. Can he hear us? Can you hear us?

MR. PRESLEY: Yeah, now I can.

DR. ZIEMER: Go ahead. Go ahead.

MR. PRESLEY: I would like to comment on the -- on the 80 days. Those people -- I was not there, but I've seen and read documents about the way they lived in the early days. A lot of the people when they were on islands lived in tents. They were exposed. It was very, very hot. They didn't have any rules about wearing shirts. A lot of them wore shirts -- or wore shorts and no shirts. With the amount of sand and small particles blowing around and living in tents, you would be exposed to the elements

24 day -- or 24 hours, 7 days a week. And I'll stop right there.

DR. ZIEMER: Thank you. Jim -- of course if we're talking about internal dose, regardless of that parameter, internal's always 24/7 anyway, so you wouldn't weight that, but is the external a driver here on these or not? I think you were saying the internal would be a driver on most of these.

DR. NETON: Internal is why -- what we're proposing -- the reason --

DR. ZIEMER: If the internal's the driver, then it's not any different from someone working in a lab, regardless of --

DR. NETON: No, no, I think -- there's an inhalation of 24 hours a day. The source term doesn't go away for them. If you work in a laboratory, you go home and --

DR. ZIEMER: Oh, yeah, yeah, yeah -- yeah --

DR. NETON: -- exposure, but --

DR. ZIEMER: Yeah, yeah.

MR. PRESLEY: These people lived a short distance from -- from some of this stuff, and they were right on it, 24/7.

DR. NETON: We're talking about the inhalation,

fallout and resuspension.

DR. MELIUS: Yeah, the -- the other question I have then, then I'll let Gen get her question in, but is really related and that's the question of the class definition of monitored or should have been monitored or -- you talked about it a little bit, Jim, but -- but I'm just wondering how -- how is it going to be possible to make that separation here? I mean I -- sounded to me like most people were monitored. There may be some people, by nature of their employment, that -- that weren't -- weren't employed there -- I -- I guess -- I think we just need to be careful about how we define that so that we -- I -- I'm not sure that's -- we need to make -- make sure there's an understanding of what that means in this particular instance 'cause it would seem to me that most people that were, quote, living there and support personnel, you know, should have been monitored, I guess is the -- so --

DR. NETON: That's true. I don't want to speak for the Department of Labor and how they qualify the cases based on the class definition, but I think the intent is that

people who actually physically worked on the island --

DR. MELIUS: Yeah.

DR. NETON: -- were present on the island doing activities versus someone who may be -- couriers that may be -- depends on what you mean by working the Pacific Proving Grounds.

DR. MELIUS: Yeah.

DR. NETON: There could be someone a thousand miles away had worked on a Pacific Proving Grounds project, never set foot on the island --

DR. MELIUS: Right, and so that employment classifications that might normally not -- we would not consider to be "should be monitored" at a fixed facility whatev-- whatever, you have courier or whatever that -- that -- in this case, people that were working on the island, so maybe the -- the definition would be better if we made it physical presence rather than monitored/not monitored. And I know Pete's going to give a presentation later on that -- some of these definitions, and maybe we will save that question for him, also, but I'm just trying to get a sense of -- of the -- the

nature of the information on the group.
DR. ZIEMER: Thank you. Gen Roessler.
DR. ROESSLER: I was going to -- oops, this is kind of bad. Can you hear me okay?
I was going to point out the 24/7 exposure to internal and external which has just come up, and I think based on what Bob Presley has said and the answer you got to your question from Jim, I think that's something we need to look at. And then I was going to ask about the number of people who would be included if there were some adjustment to what I would call a 20 -- 250-day equivalent, which maybe is considered about 80 days, and I think the answer -- and I would just like to have Jim say it again -- the difference would go from 46 percent of the population to did you say 80?
DR. NETON: Yes.
DR. ROESSLER: That would include 80 percent --
DR. NETON: a rough number I'm just reading off this graph in front of you, but if you read over --
DR. ZIEMER: Read down to 80 days.
DR. NETON: -- you read down to 80 and up -- and over to the Y axis, it looks to me around

20 percent in that way.

DR. ROESSLER: Okay, that --

DR. NETON: Or 20 percent --

DR. ROESSLER: I just wanted to verify all of that.

DR. NETON: More than the -- yeah, more than -- 80 -- 80 percent or more had more than 80 days.

DR. ROESSLER: Okay.

DR. ZIEMER: Any other questions or comments?

DR. MELIUS: Would just add --

DR. ZIEMER: Yes, Dr. Melius.

DR. MELIUS: -- another comment, I -- and that's addressing the issue of the DTRA documents and so forth. I think at our -- our last meeting we had raised concerns -- we wanted more information about those documents and the schedule for those -- those documents, and I appreciate the efforts that -- that NIOSH made to obtain that information. And my reading of it in -- from Jim's presentation is that it -- number one is that those documents that would be relevant to our consideration of the Special Exposure Cohort are -- are many month or, you know, at least over a year away from us being able to evaluate them. Number

two, that it is doubtful that certain -- that certain key areas of evaluation are not being undertaken, for various reasons, within DTRA, so even if we waited a year or more it's not clear that we would have an adequate amount of information to make it -- assessment on the adequacy of any internal dose reconstruction. Just wanted to confirm -- you, Jim, if that's a -- appropriate conclusion based on what you presented to us, I --

DR. NETON: I would agree with you, many months. I don't know if I -- a year, I -- it would be speculative to say it could be more -- a year or more, but it would be certainly many months down the line.

DR. ZIEMER: Larry Elliott has a comment on that.

MR. ELLIOTT: I've had a number of conversations with Dr. Blake since our last -- your last Board meeting and pursuing whether we could get our hands on the draft information, as you see in the letters that were provided to you this morning. And I apologize for that; they were to be copied yesterday but Kinko's somehow didn't get those produced in time. At

any rate, I think your conclusion is appropriate, Dr. Melius. If we were to go from the starting point with the data that they're using, we would have to do everything they're doing ourselves. We'd have to evaluate it. We'd have to get it peer reviewed. If we were to wait for them to finish their efforts, we would still not pick that up until it was completed in a peer review process. We want the information to be added to the body of science, to the literature base, before we would examine it and its content. So yeah, it's months to perhaps a year away.

DR. ZIEMER: Thank you. Further comments or questions?

(No responses)

PRESENTATION BY PETITIONERS

If not, we now have the opportunity to hear from the petitioner. Danielle Karo is on the line. I think Danielle is actually in California at this moment. Danielle, if you're still there, welcome.

MS. KARO: Yes, I'm still here --

DR. ZIEMER: We're pleased to hear your comments now.

MS. KARO: Thank you. I have a question regarding the 250 days. Is it an option or is it a standard? And the reason why I'm asking that is that it is my impression, and please correct me if I'm wrong, that the Amchitka people who already is part of the Special Exposure Cohort, that there there was no requirement for them for these 250 days aggregating over these 250 work days, so please kind of give me an idea of what the -- you know, clear this for me.

DR. ZIEMER: Okay. Danielle, I'm not sure we heard all of that question. We're having some difficulty with the sound here.

MS. KARO: Oh --

DR. ZIEMER: I'm going to have to ask you to repeat it.

MS. KARO: Definitely.

DR. ZIEMER: You may have to actually talk a little louder, as well, if you would, please.

MS. KARO: Yes, I'm trying to. Can you hear me now?

DR. ZIEMER: Yeah, go ahead.

MS. KARO: Yes, my question is regarding the work days aggregating at least 250 work days.

Is -- is it an option or is it a standard? The reason I'm asking is there was some inconsistency, simply because I have become aware -- and please correct me if I'm wrong -- that the Special Exposure Cohort regarding the Amchitka place in Alaska has no requirement for the 250 days.

DR. ZIEMER: I believe that is a correct statement on the Alaska facility.

MS. KARO: Right.

DR. ZIEMER: NIOSH, can you add to that -- Jim Neton?

DR. NETON: For Amchitka Island (inaudible) legislatively created by Congress, and we -- we're working on this analysis under our rule 42 CFR Part 83, which has a default of 250 days' duration; or presence, if we can determine that a very large accident occurred where a person would be irradiated at the level of a criticality incident, and our analysis of this cohort found no evidence of that.

MS. KARO: The only question that I have then -- is there a good scientific reason to arrive to this number of 250 days? Is there any science substantiating the need for that? And

I'm asking this because obviously the National Academy found recently that even lower radiation poses risk. In other words, even the smallest dose of low-level ionizing radiation has a potential to cause an increase in health risk to humans, so how do we reconcile this? You're talking about criticality and high doses, and yet we're -- you know, the National Academy of Sciences is saying even very small amounts, you know, pose risk.

DR. NETON: All I can say is that the health endangerment criteria established in our rule was -- was vetted through the -- through the regular channels. It was published for public comment. We took public comment on this. The 250 days is consistent with the legislatively-added cohorts. But I cannot exactly point to a number of dose -- you know, the dose number that would equate to 250 days for health endangerment. It was adopted in our regulation and is consistent with the Congressionally-mandated cohorts.

MS. KARO: I see. And -- and so it is written in stone? Could it be modified? Because it sounds to me -- from what I hear is that really

there isn't any good scientific reason -- or at least that's my -- kind of my -- my determination here, that it was legislated and it was a determination, but is it -- was it done at random, was it done for -- with good scientific -- for good scientific reason? I don't hear that.

DR. ZIEMER: Let the Chair attempt to answer that in part. There is a certain arbitrariness to the number. I don't think we can speculate exactly how it was determined in the Congressional language to begin with. There probably is a practical aspect to it, though. The National Academy report that you're referring to is one that talks about linear known threshold hypothesis for radiation effects that at least hypothesizes, and it's never been demonstrated in health effects, that the lowest dose may produce an effect. And in a practical sense, doses that bring the effects that we're talking about are more than trivial doses in terms of these probabilities.

MS. KARO: Right.

DR. ZIEMER: Even if we were to calculate the probability of a millirem on here, it would

have no impact on the final decision. So those theoretical issues may be there, but in a practical sense, for a person to get enough dose to reach the probabilities that we're talking about based on the risk coefficients -- which also assume that same kind of linearity -- you have to have a reasonable amount of exposure. And in the absence of monitoring data in many of these facilities, based on practical experience, we know that a person who's only been there -- unless it's an episodic event -- only been there a brief time is not likely to have reached these sort of thresholds for -- for reaching the right probability. So there's a kind of practical aspect to it, but it nonetheless has a degree of arbitrariness, as well.

MS. KARO: Uh-huh.

DR. ZIEMER: But be that as it may, Danielle, do you have some additional comments on the petition itself?

MS. KARO: Well, the only comments I have was that obviously the lengthiness of the process, and I'm not talking specific to the -- to this, you know, issue of the establishing the PPG as

a Special Exposure Cohort, but obviously I -- I have a husband who passed away a number of years ago and -- and I applied for compensation for in July of 2001 and here I am five years later and I'm not closer to a resolution at all. So I guess there is an element of timeliness.

DR. ZIEMER: Yes, thank you. And actually that element of timeliness is one of the concerns that has been raised here today in terms of any delay that might be represented by awaiting the outcome of the DTRA studies, so that's an issue for the Board, as well, to consider.

MS. KARO: And the other question, if you don't mind and then I will shut up, is the fact that if indeed the person involved does not meet this requirement or this arbitrariness of 250 days equivalence, then they will have to have a dose reconstructed, and it sounds to me like we're falling back onto the situation where inhalation and internal dosages would be difficult to establish. So even if a person is not going to be included in -- in the Special Exposure Cohort because they have not served for 250 days equivalence, how are they going to

-- if the dose needs to be reconstructed, what kind of formulas and what kind of calculations will be used when in fact it's been established that it's very difficult to figure out the inhalation doses.

DR. NETON: That's a very good question.

DR. ZIEMER: Dr. Neton.

DR. NETON: The answer is that if we make the determination that inhalation doses cannot be reconstructed, the remaining cases that were forwarded to us for dose reconstruction would be partial reconstructions. That is, we would only reconstruct the doses we could -- we could do with sufficient accuracy, and that would end up being the external dosimetry component and any medical exposures that may have occurred. The inhalation doses would not be considered in those dose reconstructions because, by definition, we couldn't reconstruct them.

MS. KARO: And then how are you going to be able to make a decision based on a partial reconstruction?

DR. NETON: The decision would be based solely on the -- the outcome of the partial dose reconstruction.

MS. KARO: Thank you.

DR. ZIEMER: Danielle, do you have any further questions or comments?

MS. KARO: No. No, thank you for --

DR. ZIEMER: Thank you very much for being with us today.

MS. KARO: Thank you for allowing me to -- to –

BOARD DISCUSSION

DR. ZIEMER: Now again, Board, is there further discussion on this particular issue?

Dr. Melius.

DR. MELIUS: Yeah, I would -- it's not a motion yet, this is for discussion.

DR. ZIEMER: Yeah.

DR. MELIUS: Okay? I would propose that we go forward, we -- I would be in favor of approving this Special Exposure Cohort petition, the -- that there be some adjustment for the fact that people lived on the site so I think we need to explicitly address that -- that issue. I am disturbed, though, about the -- the sort of the inconsistency between this -- our approach and what we're allowing and the DTRA program, and -- in terms of the people with what may turn out to be less than 80 days of -- of a dose, and I

would suggest that -- and this is going to come up in Nevada Test Site, too, so it's -- it's something I think we should try to address. And I would think that -- I would like to ask NIOSH to do some further work to describe tho-- those people and better describe the population in terms of those with short-term exposure. And -- and I think we need to, you know, try to determine, you know, what's the appropriate approach for dealing with this episodic exposure such as here and at the Nevada Test Site. It may be that -- I guess I'm disturbed that we're ignoring the -- one of the -- you know, major sources that are dose (sic). We can deal with external if we just do a straight dose reconstruction, but not with the internal. It may be that some of the information from the reports that DTRA is working on might help us better understand the endangerment issue, though still might not be sufficient for full dose reconstruction the way we have approached it.

I also think we have to keep in mind that the Congressional intent, when this law was passed, did make a separation between Amchitka and the

other Congressionally-mandated Special Exposure Cohorts, and presence at Amchitka was considered sufficient and 250 days was required -- required for -- for the others. And I think that was some recognition of having -- making Amchitka consistent with the program with the veterans, also was, you know, recognition that that was a different situation and that -- that if we -- if we were following sort of our logic, at least part of the rationale for when we did the 250 days in the health endangerment portion of our regulation for Special Exposure Cohorts, then that was based on well, we were paralleling the -- the -- what Congress had done. Well, if we were following that, then -- if we were paralleling Congress on a site where atomic weapons were exploded, like Amchitka, then Pacific Proving Ground and Nevada Test Site, one might have a different criteria for -- - for health endangerment. I don't think we have enough information to -- to make a judgment on that, but I do think that we need to do further work and we should re-- should re-- explicitly reserve that issue in our recommendation.

DR. ZIEMER: Thank you. Roy DeHart.

DR. DEHART: Basically your last sentence is what I was going to speak to. We have in the past identified members of a cohort as to different time elements, and certainly we could do that in this situation if it were the Board's intent to separate, so that we do have time to look at the issues of less than 250 days. And I would recommend that we give thought to approving the 250-day, with a second criteria to continue to research and determine what to do with those individuals who have not reached that number of days.

DR. MELIUS: So -- so you -- I guess where we differ is I would be willing at this point to include some adjustment for people living on the island, so I'd cut 250 by three to make that -- and I think that a -- there may be theoretically a way of doing that adjustment better, but I'm not sure that there's adequate information to be able to -- to do that. I think we just have to be careful that when we define the cohort that those that would meet the -- the 83-day criteria, or whatever it is, would be able to -- would actually be present

at -- on -- in an area where there was endangerment, I guess is putting it theoretically, and do that as not someone that was, you know, shipped in and out or -- or whatever, that we do make sure it's appropriate. I'm not sure that it's going to be possible to do a -- a better adjustment that -- you know, depending on where they -- their activities or exactly where they worked and lived and so forth, based on the available information.

DR. ZIEMER: Actually -- and let me interject here and get a kind of procedural question -- if, for example, the Board were to approve or recommend approval of this petition, either in its present form or with a weighted 250-day or something like that, and if later -- say a year from now -- we learn something from the DTRA studies and other information that would impact on the issue of the episodic events, is -- is the -- is the door closed to considering that part of the population again separately as... See, the analogy made with Amchitka, I -- was that an underground test?

DR. MELIUS: That's underground.

DR. ZIEMER: That was underground.
MR. ELLIOTT: It was an underground test.
DR. ZIEMER: And there are a lot of differences there between that and these tests in terms of the nature of the exposures to the people, so I'm not sure that's a good analogy. I'm not saying it isn't a good analogy, but the fact that it was a weapons test per se I don't think, to me, makes the argument that they are necessarily the same.
DR. MELIUS: I think it was an -- I read it as sort of as a -- the dealing with an episodic exposure in terms of the facility --
DR. ZIEMER: I understand what you're saying.
DR. MELIUS: And it's a little more complicated 'cause I think another factor, frankly, was that people lived on that island, you know --
DR. ZIEMER: Yeah.
DR. MELIUS: -- didn't have any place --
DR. ZIEMER: Yeah.
DR. MELIUS: -- else to go, so --
DR. ZIEMER: Yeah. Yeah, there's always differences and --
MR. ELLIOTT: It was an episodic event. It was an underground test. And you know, I certainly

don't know the intent of Congress and how they wrote that, but what we do know from our understanding of the experience, that they sent people back down into those -- into the shaft to collect information, and certainly there was exposure in that experience.

Now back to your question, Dr. Ziemer, I can't recall anything in the rule that says a class could not be revisited, that it stands, you know, in concrete at a given point in time. I would think that we would be able to revisit a class, particularly with this type of context where new information may come to light that would change an understanding about health endangerment. Certainly if that were to be the case, we would have to work with DOL and review all of those cases that had been -- that DOL had adjudicated under the, you know, previous class definition.

I would only -- I would offer this in -- as a further comment. We present to you a recommendation that is bounded by our -- the words in our rule, 250 days or presence. DTRA uses presence. They -- they know where their veterans were, which shots they participated in

and what their roles were, and they have very clear evidence of that. They understand, you know -- you know, whether it was a Navy SEABEE or whether it was a -- Navy personnel on a ship that was stationed and adjacent to the shot, whether it was somebody they marched in after the aerial shot at Nevada Test Site. They have that kind of information. We have a much more difficult time in creating a work history for -- - for the claimants in this program, and especially those claimants who have -- have left us and passed on and the survivors may have never been told what -- what those folks really did in a given event.

MS. SCHUBERT: (Via telephone) Excuse me, is this --

MR. ELLIOTT: You know, I -- you know, I can't -- I can't advise the Board on -- on this any more than just to say, you know, the way we brought it to you was 250 days. If the Board says presence is the way it should go, I'm sure the Secretary would consider that in his -- his deliberation.

MS. SCHUBERT: Is it possible for a member of the public to ask a question about this?

DR. ZIEMER: Hang on just a minute. We need to turn your volume up here. Could you repeat that?

MS. SCHUBERT: Is it possible to ask a question of clarification --

DR. ZIEMER: You certainly can. You certainly can.

MS. SCHUBERT: My name is Sandra Schubert. I work for Senator Reid, and I have a question about sort of what's being discussed because of possible Presidential/residential* impact on the discussion about the Nevada Test Site. I have talked to a couple of people, including within NIOSH, about this very issue about if a decision is made on an SEC as it's being proposed here and in NIOSH that in our mind I would say does not include episodic events such as nuclear explosions, and we're hard-pressed to find out -- to understand what would be a critical event if not a nuclear bomb exploding. But the way it was explained to us that that would not preclude expanding the class at a later date. There was no ex-- no statement in my conversations that additional information would have to be brought forward, but rather

than since it wasn't proposed here, there was nothing that precludes it, even based on the current information and further discussion of it, from being considered at a later date. It sounds like the gentleman who just spoke, and I don't know who it is, is saying something significantly different, that it can only be addressed if there's additional information, and that is explicitly different than what I have been told.

DR. ZIEMER: That was Larry Elliott, and let him clarify that for you.

MR. ELLIOTT: Yeah. Yes, ma'am, I was answering Dr. Ziemer's question as to whether or not if -- if the DTRA information led us to a different understanding for PPG and specific to that petition. Your question I believe was raised with regard to the Nevada Test Site and whether or not -- if that class is awarded, can another petition come forward to expand that class or to --

MS. SCHUBERT: That's not --

MR. ELLIOTT: -- redefine that class, and certainly a person -- anybody can -- can provide a petition and the basis that they

submit with that petition would be evaluated and --

MS. SCHUBERT: That actually is not the question. The question is whether, based on the information in the particular petition before the Board, if they consider -- can they go forward with an SEC recommendation without closing off any other possible interpretations of what that cohort may be. For instance, can they determine today that they're going to grant an SEC based on 250 days or 80 days, depending on what you're talking about, and then revisit that very same petition perhaps in a few weeks to discuss the issue of less than the 250-day or the 80-day limit. I have been told in conversations just in the last couple of days that that can be done. It sounds as though what you're saying is no, you would interpret that this petition is closed and another SEC petition would have to be received. Those are two very distinct things, and I think it's important to clarify.

MR. ELLIOTT: Yes, I -- I understand the importance to clarify this. The petition that we would -- that would be closed based upon the

Board's recommendation to the Secretary and the Secretary making a designation, that petition -- I would need to talk to legal counsel about that, but the petitioner can appeal the health endangerment designation. We've had one instance of that already. There's a panel that would -- an appeal panel that would take that up.

MS. SCHUBERT: So you're saying, though, that the Board itself cannot make a recommendation and keep further discussion open.

MR. ELLIOTT: No, they can.

DR. MELIUS: And actually --

MR. ELLIOTT: They can.

DR. MELIUS: Can I speak?

DR. ZIEMER: Yeah, and for the Court Reporter, I think -- Ray, I don't know if you got the individual's name here. This is not Danielle Karo who's speaking.

MS. SCHUBERT: No, I'm just trying to understand --

DR. ZIEMER: This is I think maybe Sandi Schubert from Senator Reid's office. Is that correct?

MS. SCHUBERT: Yes, it is.

DR. ZIEMER: Okay, Sandi, thank you. Jim Melius wants to speak to that point, as well.

DR. MELIUS: I think in the past we've essentially split petitions, and we've made determinations on part of a petition or -- determination and then we've reserved and kept working on another aspect of it --

MR. ELLIOTT: Yes, we have.

DR. MELIUS: -- so we -- so we wouldn't be in a situation for someone have to re-- appeal or re-petition, and I'd propose that we just keep open the question -- you know, explicitly say in our letter to the Secretary that we're keeping open this issue of the episodic exposure and -- and, you know, awaiting further information on -- on that, and I think that's consistent with what we've done before and would allow us to -- to move forward on this without, you know, requiring a new petition or an appeal or anything.

MR. ELLIOTT: Yes, certainly you can do that, and we have precedent to that effect.

DR. ZIEMER: And perhaps --

MR. ELLIOTT: That's not the question as I understood it --

DR. MELIUS: Yeah, it -- no.
MR. ELLIOTT: -- from Ms. Schubert.
DR. ZIEMER: And I assume Sandi's question may pertain more specifically to the Nevada Test Site. I'm not aware that it would close any doors for expanding an SEC, either in terms of time, if -- or location or whatever.
MS. SCHUBERT: I appreciate that very much.
MR. ELLIOTT: I believe you're right, Dr. Ziemer. That is correct.
DR. WADE: When we talk about Nevada Test Site -- this is Lew Wade -- we need to get this very clearly on the record because, again, it is import-- an important issue --
DR. ZIEMER: Yeah.
DR. WADE: -- but let's continue.
DR. ZIEMER: Okay. Thank you. Pete Turcic from the Department of Labor has a comment. Pete.
MR. TURCIC: Thank you, Dr. Ziemer. I just want to point out that in practice the way we apply the 250 days in a situation to be consistent with what we do with all the SECs, to be consistent, it would in fact be the 83 days or whatever if someone was there around

the clock.

The caution I want to make is that if -- if the petition is approved with something other than the 250 days -- and again, in practice it would be the 83 days in applying it -- then we may have a real legal issue and our hands may be tied until the NIOSH reg is revised to allow something different. So you know, the point that -- the point that I'm making that in practice if someone lived at the site, then just as we address, you know, issues of overtime, we pro rate that so that if they were there 24 hours a day it would be the 250 divided by three in practice. If the petition -- and I don't know -- would become a legal issue, if a petition is -- a class is established with less than the 250 days, we may be in a bind to proceed with that until the NIOSH reg was changed in order to allow that to happen.

DR. ZIEMER: Thank you, Pete, that I think is a new piece of information that is important for us to hear. I'm not sure any of us realized that that in practice was how this was carried out. So you are already doing what has been

suggested here and weighting the times accordingly. Has that actually show up in other petitions to be --

UNIDENTIFIED: Quite a bit.

DR. ZIEMER: Oh, it has? Okay. So in practice what we're going to see if we approve a 250 is in practice the 83 days for these people.

DR. MELIUS: But -- can I just ask Pete a quick -- but there would be no prob-- problem if we explicitly pointed the -- out the need to take that into account.

MR. TURCIC: No, no problem.

DR. MELIUS: Yeah.

DR. ZIEMER: Or that it's our understanding that this is how it would be done.

DR. MELIUS: Well, yeah, something to that effect, yeah.

DR. ZIEMER: Roy DeHart and then Michael Gibson.

DR. DEHART: And then we would still include a separation for those who would be less than the 250 days -- or the 83, as the case may be -- so that we can continue to pursue that, leave that open. Yeah.

DR. ZIEMER: Michael.

MR. GIBSON: Just a question for Department of Labor. If this has been the practice or -- in the past that you've pro-rated the time based on overtime, et cetera, have you run into legal issues and have those had to be delayed until legal made a determination and/or NIOSH changed the regulations in the past?

MR. TURCIC: No. It's not an issue because it is 250 days, and then when -- the way we --

UNIDENTIFIED: We can't hear.

MR. TURCIC: -- 250 days...

MS. MUNN: You need a mike.

DR. ZIEMER: Just go ahead and repeat that, Pete, so that those on the phone can hear you.

MR. TURCIC: No, we have not run into any problems --

MR. ELLIOTT: You have to turn it on.

MR. TURCIC: We have not run into -- We haven't run into any problems because it is the 250 days, and then when we apply the 250 days we consider each day a normal working shift. So you know, if someone was working ten-hour days, we'd take that into account in the calculation of the 250 days.

DR. ZIEMER: Good. Okay. Thank you, Pete.

Other comments or questions?

DR. WADE: I'd like to -- this is Lew Wade. I'd like to explore, just for clarification because these issues are so important. Let's assume that the Board votes the motion as we're hearing it, and that is, you know, for people with the 250 working days, add them to the class. For people with less than that, they wish the issue to be kept open pending an understanding of what DTRA might bring to the table from a science point of view.

I see two pathways open. One is we would attempt to do partial dose reconstructions for the people who were less than the X days. Those claims might be denied, based upon a partial dose reconstruction. They could be reopened if new information was to come forward. Or you could pend the claims. Is -- is there a sense as to which direction you would go down?

MR. ELLIOTT: I don't know that we -- we haven't -- we haven't had any discussions or thoughts about this in -- in specific, and I'm thinking of the -- I think it would really go to the type of cancer, perhaps, and what dose

we can reconstruct in a partial dose reconstruction. And certainly our practice and our policy has been, when we can reconstruct dose to move a claimant toward a decision, we do so. If there's some circumstances or outlying information that would lead to a more accurate dose reconstruction for decision, such as what we're dealing with in construction workers right now -- we're trying to put together a Technical Basis Document that will put them in a better position in their dose reconstructions -- we pend those claims. So it would just depend upon the circumstances of the claim as we would see it based upon our practice right now.

DR. WADE: Thank you, I just want to get that on the record. I think that's fine.

DR. MELIUS: Yeah, can -- can I just --

DR. ZIEMER: Dr. Melius.

DR. MELIUS: -- yeah, just add -- I would just clarify -- I don't think it's just a question of -- of the DTRA information. I think there's some other information that we may be -- NIOSH may be able to pull together on -- on this issue regarding different job classifications,

what information's available, what are the external doses that -- that people experienced there and so forth. I would suggest that we develop a -- maybe a workgroup to work with NIOSH on -- on evaluating this issue and see where we can go with it. I think there's some -- some of the detailed information that Jim had that I think 'cause of privacy concerns can't share in an open meeting, we may be able to -- might -- might be helpful, also -- do that, so...

DR. ZIEMER: Okay. I'm just taking that right now as an idea.

DR. MELIUS: Exactly, right.

DR. ZIEMER: All right.

DR. MELIUS: Can I have another idea?

DR. ZIEMER: Yes, another idea. You -- this limits -- you've used your quota of ideas --

DR. MELIUS: A long time ago, some would say. I would be willing, since I actually started it at the last meeting, to draft up one of our usual letter motions and get that prepared so that we can -- soon as we can get it copied and have further discussion, may be -- I -- practically speaking, it'll probably be after

lunch, but right after lunch we could discuss it or whenever there's time if that's --

DR. WADE: We have Board working group tomorrow afternoon.

DR. ZIEMER: Yeah, we --

DR. WADE: Certainly then, possibly --

DR. MELIUS: Whenever you -- whenever.

DR. ZIEMER: If I understand what you're saying, you are going -- you are prepared to propose a motion to recommend approval of this SEC petition.

DR. MELIUS: Uh-huh.

DR. ZIEMER: Is that correct?

DR. MELIUS: Correct.

DR. ZIEMER: The exact wording you're not yet prepared to present --

DR. MELIUS: No.

DR. ZIEMER: -- and therefore would defer actually making such a motion till later in the meeting.

DR. MELIUS: Correct.

DR. ZIEMER: Okay. Thank you. So that's just our kind of pending thought that we could expect a motion to approve to come forth a little later in the meeting. Brad Clawson,

comment.

MR. CLAWSON: I just have a question for the Department of Labor, though. You said that you've done it in the past, that you've -- you've adjusted the 250 days and what -- what I'm wondering, especially in this Pacific Proving Grounds, how are the petitioners going to know how this was performed? Are you notifying them of -- of this or -- or how are -- how are we -- you know, do we need to propose it in a way that we make sure this is done, because I think on the Pacific Proving Grounds this is very crucial because the people living there in this 24/7.

MR. TURCIC: What we would do is that for individuals who lived there, their decision would say that they met the 250-day requirement by -- and it would spell out and refer to the policy, you know, that -- that says that we address and -- and -- you know, how we count the days. And so the -- the decision would specifically say that.

Now if there was some -- if there was an individual who maybe they lived on-ship somewhere, you know, and -- and did their --

did a normal shift, then that would not apply. So the decision would be very specific, that here's how they met the 250-day -- it would refer to the policy on counting the 250 days and come up with -- you know, if it come out to be 83 days, then they would meet the -- meet the requirements and be put into the class.

DR. ZIEMER: Thank you.

MR. CLAWSON: Thank you.

DR. ZIEMER: Is there any further discussion on the Pacific Proving Grounds? If -- okay, Larry Elliott. Thank you.

MR. ELLIOTT: I think it's important to follow up on that a little bit more. I'm going to put Pete on the spot here again. For partial dose reconstructions, how would the decision read? I mean you -- a person who was only there for 78 days and we do a partial dose reconstruction, so how would -- how would you advise the claimant in that regard?

MR. TURCIC: Their decision would spell out that they are not a member of the class and explain why they were not a member of the class. And then it would refer to the dose reconstruction and, depending on what that was,

whether it was a denial or an approval.

MR. ELLIOTT: And if they were, would you advise them on a condition (inaudible) cancer in the future?

DR. ZIEMER: Repeat -- repeat the -- Larry's question, if you would, Pete.

MR. TURCIC: Yeah, Larry asked if -- if they -- if it was a living employee, would we inform them about, you know, if they got an additional cancer that they could come back in -- yeah, all that's explained in -- in our decisions and explained in what their appeal rights are.

DR. ZIEMER: Okay. So in essence these individuals would learn that they had not met the 250-day criteria, just as the ones who do meet it are informed, and -- and you would go from there.

MR. TURCIC: Yes, exactly.

DR. ZIEMER: Okay, any other discussion or comments?

(No responses)

Then we will have an opportunity later in the meeting to address specific motions dealing with this -- this proposed Special Exposure Cohort.

Lew.

DR. WADE: Yeah, just to follow up on that, Paul. For the petitioners' benefit, the way the schedule currently is constructed, we would likely take up that motion at 2:30 p.m. Mountain time tomorrow, so you know, you could adjust your schedule accordingly. That's the time we have scheduled for the Board working time.

DR. ZIEMER: Yes, and Danielle, just -- again, this is Dr. Ziemer, just to follow up on that, based on what Dr. Melius has stated, we are expecting a motion to approve the petition.

MS. KARO: Uh-huh, yes.

DR. ZIEMER: There may be some caveats in there dealing with this weighted 250-day calculation, but nonetheless that's what we anticipate. And then there would be a Board vote on that at that time.

MS. KARO: And this Board vote will take place tomorrow at 2:30 --

DR. ZIEMER: Approximately at that time period, that's correct.

MS. KARO: Oh.

DR. WADE: 2:30 Denver time.

DR. ZIEMER: Denver time.
MS. KARO: Yes, Mountain time.
DR. ZIEMER: Okay.
DR. WADE: Now Dr. Melius, with his wisdom, also asked me if there would be a quorum. I answered yes. If any Board members are intending not to be here during that time, I need to know.
DR. ROESSLER: I hate to say this sitting next to Wanda, but I probably should leave about 2:15, if that could be moved up a little bit. Either that, or if I could leave my vote with someone.
DR. ZIEMER: Actually it would be possible for us to put some working session and just trade it with the program updates and go at 1:00 o'clock.
DR. ROESSLER: That would be great. I'll be here.
DR. ZIEMER: Is that agreeable?
DR. WADE: So with -- without Gen we would still have a quorum, but for full participation --
DR. ROESSLER: I'd like to --
DR. WADE: -- we'll make an adjustment to the

agenda and Ms. Petitioner, we would be intending to take up this issue at 1:00 p.m. Denver time tomorrow.

DR. ZIEMER: Okay. Danielle, thank you for being with us. We're going to recess now for --

MS. KARO: Thank you.

DR. ZIEMER: -- for 15 minutes.

(Whereupon, a recess was taken from 10:05 a.m. to 10:35 a.m.)

MR. PRESLEY: Hey, Liz, you got to holler at them.

MS. HOMOKI-TITUS: Okay, I'll try again.

DR. ZIEMER: The phone lines have been rewired here during the break so we want to check the phone lines out. Bob Presley, are you still there?

MR. PRESLEY: Yes.

DR. ZIEMER: And Sandi Schubert, are you still there?

(No response)

Okay, perhaps Sandi will be on shortly.

MR. PRESLEY: Liz is on, too, or she was.

DR. ZIEMER: Oh, Liz, are you on?

MS. HOMOKI-TITUS: Dr. Ziemer, I am on. Is Lew

there?

DR. WADE: Yes, I'm here.

DR. ZIEMER: Lew is here.

MS. HOMOKI-TITUS: Lew, Emily is coming back to discuss an issue with you and I just wanted to give you a heads-up before you guys get started that you need to talk to her for at least two minutes.

DR. WADE: Okay.

MS. HOMOKI-TITUS: Thanks.

(Pause)

NEVADA TEST SITE (NTS) SEC

DR. ZIEMER: We want to hear from Sandi Schubert regarding the Nevada Test Site petition, and we need to wait just a moment to make sure she gets on the line.

MS. SCHUBERT: Are you guys waiting for me?

DR. ZIEMER: Yes, Sandi, are you there now?

MS. SCHUBERT: Hi -- yeah, I accidentally got --

DR. ZIEMER: Okay, welcome back. We're just ready to reconvene and we want to give you the floor first here. You have some remarks from Senator Reid's office, I believe.

PRESENTATION BY PETITIONERS

MS. SCHUBERT: I'll just take a couple of minutes. As you guys all know, Senator Reid has long supported compensating workers who suffer from cancer and other illnesses as a result of their work during the Cold War. He actually was involved in the passage of the EEOICPA when it first passed and is familiar with the legislative history and the intent is to compensate all those who are deserving. He is happy to see that -- that NIOSH is moving forward and has initiated the recommendation for an SEC for some workers at the Nevada Test Site, and if I understand this -- the limitations of the definition correctly, that's only those employed for 250 days during the years of the above-ground tests. He does not believe that this definition goes far enough, both for the workers there during those years -- he also believes that below-ground test workers should be covered. And I want to -- I sat in, as my of you know, on the Pacific Proving Ground conversation and I'd like to make a couple of comments that -- some of which came up as a result of that, but which we feel -- Senator Reid feels strongly about.

There's a difference between the recommendation for the definition of a cohort between NTS and Pacific Proving Ground that I don't understand. In the Pacific Proving Ground you recommend coverage for people who were or should have been monitored. In the NTS site recommendation that -- that language is not included and we would see that as a huge omission. It is documented, the significant problems with monitoring at the site, the actual amount of monitoring and hiding badges for a variety of reasons because people did not want to get over certain amounts which would move them into less hazardous and less well-paid areas. That's documented in the site assessment -- the audit of the site assessment and numerous documents about the Test Site, so that's one issue that's of concern and --

DR. ZIEMER: Sandi, if I could interrupt you just a moment because I'm looking at the -- the petition evaluation report from --

MS. SCHUBERT: Uh-huh.

DR. ZIEMER: -- from NIOSH, and the proposed class definition in fact does include the words "who were monitored or should have been

monitored."

MS. SCHUBERT: Okay.

DR. ZIEMER: Were those the words you were asking about?

MS. SCHUBERT: Okay, that is helpful.

DR. ZIEMER: Yeah, the -- it -- do you -- have -- have you been --

MS. SCHUBERT: I actually do have the copy of it. I -- I'm -- the copy of it. I will pull it up again.

DR. ZIEMER: I was going to ask if you had received the --

MS. SCHUBERT: I don't have a copy of the petition itself. I wasn't able --

DR. ZIEMER: Okay.

MS. SCHUBERT: -- to get.

DR. ZIEMER: I was going to ask if you had a copy of the petition evaluation report from NIOSH, because the -- they do have that class definition and have used --

MS. SCHUBERT: Okay.

DR. ZIEMER: -- basically identical words there, so I want to assure you that that is in what we're looking at, at least, as a Board.

MS. SCHUBERT: Okay. Okay.

DR. ZIEMER: Yeah, go ahead then, proceed.
MS. SCHUBERT: And then the other issue is the less than 250 days, and this leads to some questions that can wait until after your presentations, but we -- there's a concern that NIOSH did not recommend that those present during the above-ground tests be included in the SEC. The rationale for that is not at this present clear for us. There's a couple things that come to mind. Episodic events are covered under the SEC process. It is hard to understand what could be defined as an episodic event if the explosion of a nuclear bomb is not considered an episodic event, so he would recommend including all people who worked at the site during these explosions of the atmospheric tests, and I'm just limiting our comments to the time periods you guys are looking at.
In addition, RECA, which covers Nevada Test Site workers, is framed in the same way. You have to be present at the time of the blast. It does not have a 250-day requirement and so that's a precedent for this site and those two provisions overlap.

I would, as a side measure, like to comment on that if we're looking at Amchitka as a -- going forward and develop SECs, I would think that would argue for the Nevada Test Site's below-ground workers to also be a portion of an SEC, people there present and went back during drill-backs and re-entry. As you are aware, 88 percent of all nuclear tests were done at the Nevada Test Site and we at this point do not have an SEC going forward and many of our workers have waited more than 50 years to get some sort of compensation. So despite the comments, we do not want any of these comments to be taken as a reason for not going forward today as far as we can go forward. We're hoping that the Board will expand the definition to include people present during a test -- an atmospheric test, and then I may have questions as you guys go forward.

DR. ZIEMER: Thank you very much, Sandi, and we'll proceed on that basis. And if you do have questions as we proceed, please feel free to ask. Dr. Wade has a comment --

DR. WADE: Sandi, I would like -- this is Lew Wade and we've spoken recently. I'd like to

just -- this morning when we talked about Pacific Proving Grounds you talked about some discussions you had had with NIOSH and --

MS. SCHUBERT: Uh-huh.

DR. WADE: -- and wanting clarification. I think it's terribly important that all those issues be on the record here, and that you understand the record as it's established here. The Department of Labor is here, NIOSH is here, and we can have a clear understanding of the appropriate issues, and that's really the way this Board has done its business and I think it's well that we address any issues you might have as we proceed in these discussions in an open forum.

MS. SCHUBERT: And one of the issues -- I had talked to Dr. Wade about this -- is can you partition off a portion of the SEC for future discussion without requiring -- and this may not have been explicit in the conversations I had, but it was our intention -- without requiring the submission of another petition. Because, as I said just previously, Senator Reid does feel it's -- is critical to move forward as expeditiously as possible to get

compensation for as many people as possible. But he also does believe that the definition of the cohort needs to be expanded to include people on-site during the tests.

DR. WADE: And I think the answer to that question, as with many questions, are complex and it's best answered in light of the Board's actions as it takes them, and we can have those discussions as appropriate.

PRESENTATION BY NIOSH, DR. JAMES NETON, NIOSH

DR. ZIEMER: Okay, thank you very much. Let's proceed then first with the presentation by NIOSH, which is basically the petition evaluation report, and Dr. Neton will present that. And Board members, you also I think have in your folder some copies of the presentation.

DR. NETON: Good morning again. It's actually a good fit to be presenting the Nevada Test Site evaluation report right after the Pacific Proving Ground discussion because a lot of the issues are going to be very similar in nature. I am here to talk about the Nevada Test Site SEC evaluation report, which is SEC petition 00055. This is a slightly different petition in the sense that it is filed under paragraph

83.14 of our SEC regulations, and that is it's a petition essentially self-initiated by NIOSH in the sense that we could not do a dose reconstruction for a claimant. Well, we didn't initiate the petition. We determined that we could not do a dose reconstruction for a claimant; informed the claimant, who was a laboratory assistant who worked at the Nevada Test Site between 1961 and '64, of that fact; and in fact provided him a copy of the appropriate forms to file a petition on behalf of that class. We did receive a petition from the claimant, again under paragraph 83.14, and that petition was qualified on February 28th of 2006.

In keeping with the requirements of the regulation, a *Federal Register* notice was issued on March 17th of this year, with an additional class definition of all employees of Nevada Test Site for the period from January 27th, '51 to December 31st of 1962. That may be where the confusion arises. That was the initial class definition from the petitioner. NIOSH modified that class definition to what you see on the screen here, which is a slightly

expanded version of that to include a lot of the standard language that you should now start to recognize in some of our class definitions, which is DOE or DOE contractors who were monitored or should have been monitored at Nevada Test Site. And there's always, as usual, a proviso in there that -- of a number of days aggregating at least 250 work days through the period, which can be used in combination with other -- other class definition -- sites. So that if a person worked at another site for a period of time, it could be added to the NTS period. One could surmise from this definition that we reached the point where the default 250-day requirement was in order rather than presence, and we'll talk about that in a little bit.

Let's go back and talk a little bit about the Nevada Test Site. As all of you I'm sure know, it was the primary location in the United States for testing nuclear explosives. It began in 1951. Above-ground testing was conducted from January 27th, 1951 with -- I believe it was ABLE was the shot, through July 17th, 1962, ending with Operation SUNBEAM. All

of these activities were conducted about 65 miles northwest of the city of Las Vegas, Nevada on a fairly large reservation encompassing I think about 1,400 square miles. It's a very large site, a lot of testing done I think in that time period. There were I think almost exactly 100 shots either above-ground atmospheric tests were conducted during that time period.

But in addition to atmospheric detonations, there were other safety tests that were conducted such as looking at dispersion of plutonium and uranium being exploded with conventional explosives, that sort of thing, some experimental reactor testing. There was also work done with development of nuclear aircraft engine, that kind of information, so there were other activities in addition to the above-ground atmospheric testing in the period.

As -- as you've seen in our presentations before, this is two-pronged process established under EEOICPA for adding a class, and that is, is it feasible to estimate the level of radiation number of members of the class with sufficient accuracy. And if the answer to that

is no, then is there a reasonable likelihood that radiation may have endangered -- may have endangered the health of members of the class, and those are the two guiding principles we -- we followed in coming to our determination. We took a long look in trying to do the dose reconstruction for the case where we realized we couldn't, and looked at the potential for exposure t the facility. And the extent and the distribution of contamination from these atmospheric testing tests vary quite widely. It depended a lot on the nature of the test. These -- these weapons were detonated at various heights above the ground -- surface shots, shots from towers at 30 to 200 meters above ground. There were -- there was one where there was a helium balloon attached to it and it went up to I think about 450 or 60 meters above ground. And so in addition to the type of shots and the yield of the shot and the location above ground, also the exposure to these workers would be somewhat dependent upon the local weather conditions at the time, which direction the wind blew, where the workers were in relation to the shot, that sort of thing.

Based on the above-ground testing in this 1,300 acre -- square mile site, most participants have the potential for radiation exposure to certainly beta and gamma activity as -- as the fallout descended on the local region and irradiated both their skin and -- as well as their internal exposure due to breathing of the fallout, and subsequent inhalation -- just like Pacific Proving Grounds -- due to the resuspension of contamination on the ground. Since there were many shots that contaminated the surface soil, subsequent shots would again pull up into the atmosphere the contamination that had been deposited previously and make that available for inhalation to the -- to the workers on the site.

Most personnel at the Nevada Test Site were positioned out of the forward areas. That is, they did not have people right there, civilians in particular. There were some military folks positioned nearby. And our --

MS. SCHUBERT: Excuse me, can you speak up a little bit? You're starting to fade away.

DR. NETON: Okay, I'll try.

MS. SCHUBERT: Thanks.

DR. NETON: Most personnel were positioned out of the forward area, the civilians in particular. And the information we have available indicates that personnel in the forward area did wear dosimeters, so we believe, as with Pacific Proving Grounds, we have good indications of what the external exposures to these workers were that were in the area during testing operations. There is no indication that any of those workers received external exposures that were anywhere near what one would experience from what we've defined in the rule as a criticality incident. That is an unplanned criticality accident that occurred, which would be somewhat similar to what was observed at the Y-12 facility -- Oak Ridge Y-12 facility in 1958 where people received on the order of 200, 300 rem of exposure almost instantaneously. We see no evidence of that in this cohort.

The exposure characteristics of the fallout that's coming down are fairly complicated. This site, again, was a weapon -- a nuclear weapon that was detonated above ground and generated over 200 different radionuclides that

would have to be reconstructed. There's approximately 36 elements, so you have a real mixture of radionuclides and we'd have to follow that pathway of each radionuclide through the body and into the organs, and -- and many of them had short half-life so one would have to know when the exposure occurred in relation to the weapon burst, those type of things, extremely complicated exposure scenario.

Again, some of these safety tests dispersed mixtures of uranium and plutonium using conventional explosives, which are separate and apart from the weapons testing activities, but certainly did provide an additional exposure pathway for workers at the Test Site.

So what do we have available to reconstruct doses for the workers during this time frame. As I mentioned, we have a significant number of monitoring results for external dosimetry data. Over 90 percent of the cases that we have yet to complete had external monitoring data. That's a slightly confusing statistic. We have about 600 cases yet to complete in our -- in our files. There's a total of 1,200 cases

we've received from Department of Labor for Nevada Test Site, so we're about halfway finished with the case load. Of those 600 remaining, 90 percent have external data. There are only, though -- I think our best estimate right now is about 350 cases that fall into this class definition period, so keep that in mind. There's about 350 cases that potentially would be affected by this decision. Air monitoring data was available at some locations, but we have very -- almost no information on the relation of the workers to these air monitoring samples. And in fact, very much like Pacific Proving Ground, these air samples were taken more to follow the direction of the plume rather than to help quantify the exposures to the workers on-site during the testing period.

There was no formal bioassay program at this facility prior to 1958, and in fact there was no routine program until 1961. We have almost -- very, very limited bioassay data, and given the nature of the variability of these shots, the 100 different shots with different potential exposure characteristics, we believe

that the limited data we do have are insufficient to do any type of internal dose reconstruction with sufficient accuracy for -- for the cohort.

There was after 1961 -- I believe after the atmospheric testing period ended, and starting later -- in later years, there are sufficient bioassay taken that we believe we can attempt to reconstruct doses in the underground testing period.

As with Pacific Proving Grounds, the current DTRA approach, in our opinion, is not useful for dose reconstructions under EEOICPA for -- for principally the same reasons we talked about earlier under Pacific Proving Grounds. That is, there are issues raised with the techniques applied by DTRA to evaluate internal exposures from the external badge reading. Those responses to the National Research Council are underway, but we don't expect the results for some time. So at this point we're not convinced that these approaches would provide any meaningful internal dose results, and in particular in light of the requirements for sufficient accuracy under EEOICPA.

So based on this brief discussion of what's contained in the SEC evaluation report, we have come to the conclusion that we lack sufficient -- lack monitoring, process or source information that are sufficient to reconstruct internal doses at the Nevada Test Site during the evaluation period specified, but we do believe we have sufficient information to estimate the external and medical exposures for this period. As I mentioned we have a copious -- not copious -- we have good amount of external monitoring data available for personnel for this time frame.

As far as health endangerment goes, we've determined it's not sufficient for us to estimate these doses with sufficient accuracy, in accordance with our requirements of our regulation. If we can't put a plausible upper limit on the exposure, then we have made a determination that the health of the covered employees may have been endangered. The evidence indicates that the workers in the class have accumulated internal exposures due to the inhalation of radioactive particulates as a result of these episodic shots that

occurred, and recurring exposures from resuspension of material deposited on the ground. And that is the basis for the definition of the 250-day exposure requirement for this class.

So the last slide just summarizes pretty much what I just said. The period of January 27th, '51 through December 31st, '62 we are recommending that this class be add-- this class of employees be added to the -- for the Nevada Test Site workers based on the inability to reconstruct doses and the presence of health endangerment for the class. Any questions?

DR. ZIEMER: Thank you, Dr. Neton. Let's open the floor to questions. I think one comment before that. Dr. Wade.

BOARD DISCUSSION

DR. WADE: Yeah, just a -- for the record, Mark Griffon has self-identified that he's conflicted on Nevada Test Site. I did not say that at the start of the discussion. Mark has stepped away from the table, as is appropriate, and it's a good example of Board members policing their own activities and I thank Mark for the reminder.

DR. ZIEMER: Okay, thank you. Questions now or comments? Wanda Munn and then Dr. Melius, then DeHart.

MS. MUNN: The workgroup which was looking at NTS has had several discussions about this particular case. We've not had the occasions to have a face-to-face meeting, but I think there's general consensus on the working group what our recommendation would be. I believe that Mr. Presley is on the line and, once the Board's comments have been heard, is prepared to make a motion.

DR. ZIEMER: Thank you. Jim Melius.

DR. MELIUS: Yeah. I'm not privy to what the workgroup has done and so, Wanda, you may want to -- or whoever -- somebody may want to jump in here, but -- but Jim Neton, my question is -- first question is you really -- you mentioned something in your -- sort of in passing during your presentation about the ability to reconstruct doses I think after 1962 for the below-ground testing, but we're not being asked to evaluate that. That's not part of the evaluation that's presented here. It may be something that, directly or indirectly, the

workgroup is evaluating in looking at the site profile, but -- but just for our understanding, we're not reaching any conclusion on that. We're only addressing the years prior to 1962.

DR. NETON: That's correct.

DR. MELIUS: Okay.

DR. NETON: We're only evaluating January 27th, '51 through --

DR. ZIEMER: Actually through '62, not --

DR. MELIUS: Right --

DR. NETON: Yeah --

MS. MUNN: Yeah.

DR. MELIUS: Okay.

DR. NETON: I only offered that as an example of why the class distinction is drawn at this point. We're making no judgment right now --

DR. MELIUS: Yeah, okay.

DR. NETON: -- as to what happens after that.

DR. MELIUS: Okay.

DR. ZIEMER: Roy DeHart.

MR. PRESLEY: Paul, this is Bob Presley.

DR. ZIEMER: Oh, hang on, Bob, just a minute. We'll catch you here, just a second. Roy DeHart, a comment.

DR. DEHART: Jim, during those ten years there

were quite a number of shots, as you've alluded to. How does the exposure -- what is the -- the constituency of the exposures of the people who are working there? Are these people who would have been working there during the interim of the shots, or could people have worked there and not been there in that 250 days when there were no shots? Kind of give me a feel for what we're talking about.

DR. NETON: That's a good question. I mean this was an official site. I mean there were people who worked there routinely. This was not -- not similar to Pacific Proving Grounds in the sense a lot of the technical staff flew out for the shot, although I think that probably did happen with folks from other facilities. But I did take a look at what the job categories were and -- just to get a feel of what we're talking about, and it's what one would expect. It's a combination of laborers, carpenters, mechanical designers, pipefitters, scientists -- so you -- you have the same sort of mix that you would see at any DOE facility, to some extent -- support personnel as well as scientific/technical personnel.

As far as -- I did not do an analysis of the -- of the exposure periods for these workers like I did for Pacific Proving Ground, but I think that the -- the thinking is that this was a permanent, fixed facility where there were a lot of folks who just worked there and happened to be present during these shots and were exposed, either directly through working, you know, in the area of the shot or indirectly as a result of being in the plume.

DR. ZIEMER: Thank you.

MR. PRESLEY: Paul, can I comment? This is Bob Presley.

DR. ZIEMER: Yes. Go ahead, Bob Presley on line.

MR. PRESLEY: Jim's exactly right. We had quite a large what we called a permanent party that stayed full time. They were -- they were employed 24/7 at the Test Site. A lot of them lived there at Mercury. In the later years some of them lived up on the mesa at what we called the forward -- forward operation area. But those people would go back and forth on their daily jobs through the areas where the above-ground tests had been made -- or where

they'd been dropped.

DR. ZIEMER: Okay, thank you, Robert. And can -- Bob, can you or any of the NIOSH staff answer the question as to the relative exposures at -- at the Mercury site, which is where many of these folks spent their time when off duty, versus the duty sites around NTS? Is it a lower background area in general, or about the same?

MR. PRESLEY: Generally yes, it would be a lower background area. Some of the problems that we had when I was even going out there is if you went out in some of the older air drop sites and you drove through those sites, you would bring particles back on your tires on the car. And that was one of the areas they -- they waited all the way back till you got to Mercury where they had a wash drop where they would wash the cars, and at that time, you know, you were bringing stuff into Mercury. And then out there, the way the wind blows and things like that, even though Mercury is about -- oh, 25 to 35 miles from the -- some of the early drop sites -- maybe not 25 miles -- the wind blows out there seriously at times of the

year and it could have blown some of the particles back over to that area. So there is a -- there is a possibility of contamination.

DR. NETON: I would also add to that that we have very poor information about the location of the workers relative to space to where these shots occurred.

MR. PRESLEY: Speak up, Jim, I can't hear you.

DR. NETON: We have very poor information about the relative location of these workers at the facility, as well.

MR. PRESLEY: That's correct.

MS. SCHUBERT: Is this being taken into account in any way in ascertaining what a work day would be?

DR. ZIEMER: That's actually what I was leading to because -- and Bob Presley's already alluded to the fact that simply traversing the site on the way to a duty station might expose one to elevated areas. Do we know, for example, on the personnel monitoring -- at what point do they wear their personnel monitoring? Do they take it back to the Mercury site or do they leave it somewhere?

DR. NETON: I believe -- I believe that the

badges were issued at the entrance to the facility.

MR. PRESLEY: That's correct.

MS. SCHUBERT: I can't hear that. I'm sorry, the badges were issued where?

DR. NETON: I believe that the badges were issued at the entrance to the -- to the site itself.

DR. ZIEMER: So once you're on-site, you had your badge 24 hours.

MR. PRESLEY: That's correct, you got -- you got your badge when you entered at Mercury and you wore your badge -- or you're supposed to have it with you 24/7.

DR. ZIEMER: Okay, so --

MS. SCHUBERT: Can I -- I have -- I have a question about the wearing the badges 24/7. There is significant literature, including the person who was the lead health physicist at the site for most of the time, indicating that that in fact is not what occurred. And in our discussions with Site workers, wearing badges 24/7 was the exception as versus the rule. Why didn't you guys look at some of the materials, when you were analyzing this situation, that

indicate that these badges weren't being worn, including I believe that there's a book by the former head health physicist that details a lot of this.

DR. NETON: Well, I think -- the answer to that is we had sufficient evidence that we can't do dose reconstructions with sufficient accuracy based on the internal dosimetry exposure alone, and because of that the class would be added, we -- I mean the class should be added, and that we would use the external dose results that were available as measured on the badge and do partial dose reconstructions to the extent possible.

MS. SCHUBERT: And I -- I mean I -- I'm not sure that actually answers my question because the problem is these badges. I mean you guys say you have badges for 90 percent of the claims, and I'm not sure what years that includes, but there's significant evidence and your own audit report indicates that that actually is not the fact that went on at the site.

Can I ask a question about partial dose reconstruction? So when you do a partial dose

reconstruction and look at just the external dose, how do you account for the portion of internal dose that you cannot estimate?

DR. NETON: Well, we don't. Since we -- since we have determined that we can't estimate it, there would be no internal dose assessed.

MS. SCHUBERT: So what you guys are saying is that although -- for instance, I think everybody would agree that anybody on the site under 250 days who was present during a bomb probably got an internal dose, but because you can't estimate it, you're not going to calculate it as part of a dose reconstruction?

DR. NETON: Well, yes. I mean if you can't estimate it, you can't estimate it.

MS. SCHUBERT: If you can't accurately estimate dose, doesn't that put people into an SEC as versus putting them into a situation where you ignore the dose you can't estimate?

DR. NETON: Well, we are putting them into the SEC. The issue I think you're getting to is whether the duration of employment should be 250 days or less.

MS. SCHUBERT: Well, you're not putting anybody under 250 days into the SEC based on this

particular recommendation --

DR. NETON: That's correct.

MS. SCHUBERT: -- yet the acknowledgement is still out there that internal dose reconstruction cannot be done for these people.

DR. NETON: Yeah. This is not unique to the Nevada Test Site. This situation has arisen at almost all the other SECs that we've evaluated. I mean there's a -- there's a issue here. If you -- you know, if you add a class because you cannot reconstruct some component, then it's very difficult for us to turn around and say well, we'll just go and reconstruct it. I mean that's sort of an inconsistent logic, we believe.

DR. ZIEMER: Okay. Brad Clawson has a question or comment.

MR. CLAWSON: I guess I was just looking in the 250 days, you know, we're talking that they were away from Mercury, which is basically 25 miles away from it. Some of the information that I've looked into it, we've had -- we've had plumes from some of these explosions that has gone as far as Utah and Idaho, and that's quite a bit more than what Mercury was at.

It's getting back to the 250 days. I -- I personally feel that we need to look at this somewhat like the Proving Grounds where those people were living there. It's -- it's just a question that these -- these people were there all the time.

DR. ZIEMER: Thank you. Jim Melius.

DR. MELIUS: Yeah, to follow up that -- two things. First on Sandi's question about the partial dose reconstructions. In some discussions yesterday the Board had asked for some further information on how those are done and what NIOSH's approach is, and so we will be discussing that issue in -- in more detail as it pertains really to this site and all the other SEC sites. And so -- so I think we'll -- we'll be able to evaluate that.

In terms of follow-up to -- to Brad's question, I guess my question here is I think it's a bit more complicated than the Pacific Proving Ground 'cause you -- you -- was no place else to live and to -- or to go, essentially. Here it's a much more complicated site in terms of the type of facilities and so forth, and determining whether someone -- you know, how

many hours -- hours they spent there or whatever I think is going to be more complicated.

And I guess I also have some questions on the -- the implementation of the -- the class definition here, given the number of -- of different sites. Are we essentially including everybody -- I mean how will we implement this definition, particularly the, you know, "should have been monitored" portion of it. And also I think the question of implementing the question that Brad raised about people living out at that site.

DR. NETON: Okay. The "should have been monitored" I think -- it's our opinion that people were badged at the entrance to the facility, so I think that would -- that would cover pretty much everyone that's in the class, you know, is my opinion.

I'm sorry, was there a second part to that?

DR. MELIUS: The second -- the second part is -- is -- is there going to be a way to identify people that live -- that lived out at the site? I mean how are we going to --

DR. NETON: Okay.

DR. MELIUS: As opposed to Pacific Proving Ground where I think you would -- so -- some ways there's an assumption based -- you know, there's no place to go. Here there are places to go, it's a lot farther, but --

DR. NETON: I'd have to --

DR. MELIUS: -- it's a long drive to...

DR. NETON: I'd have to refer that question to maybe the Department of Labor or -- if they'd be willing to opine an opinion here.

DR. ZIEMER: So the question has to do with to what extent do we know individually whether people stayed there 24/7 versus living off-site and going home at night? Is that --

DR. MELIUS: Yeah, I think the -- that's the question. Are we going to be -- if we're going to take into account people's living at the site and making some assumptions about their exposures based on that, then are we going to be able to identify them.

MR. TURCIC: We would have to have probative evidence that an individual did in fact live there, you know, so -- I mean because there were a number of people who traveled, who commuted daily.

DR. MELIUS: Uh-huh.

MR. TURCIC: So we would need evidence, and it would be just like any other factual information, we could -- you know, either through records or affidavits, a number of ways, but we would need some evidence that an individual was there, you know, and did -- did in fact live there. And then we would, you know, again, apply the process where we would, you know, count 24 hours a day for that -- that individual.

DR. ZIEMER: Could I follow that up a moment, Pete? Does -- do the folks at Labor then automatically, in this case, consider if the person is on the site 24/7 then that gets the appropriate weighting, even though they're not in the work area, they're there at the Mercury site.

MR. TURCIC: Yeah, because --

DR. ZIEMER:

MR. TURCIC: Because the Mercury site is on the site.

DR. ZIEMER: Yeah, it's -- it's in the gates.

MR. TURCIC: Yeah, that's exactly how we would apply that.

DR. ZIEMER: Thank you.
DR. MELIUS: So procedur-- procedurally, we approve this class, all those 250 days or more would be approved. Those less than 250 days, would Department of Labor communicate with them saying that, you know, we need additional information. If they could provide information, for example, they worked for a contractor who, you know, for 90 days was at, you know, during certain time period was out on the site, they lived on the site, then that would be the type of information you'd be looking for?
MR. TURCIC: Exactly.
DR. MELIUS: Yeah, okay.
MS. SCHUBERT: Is -- is that information readily available for over 50 years ago? 'Cause in our discussions that information is almost impossible for these guys to get ahold of.
MR. PRESLEY: This is Bob Presley again. Can y'all hear me?
DR. ZIEMER: Yeah, Robert, can you answer that?
MR. PRESLEY: They had what they called a housing authority on site. I do not know the

date that it started, but the housing authority, when I was out there, kept up with everybody and where they stayed. They gave you a telephone number. They delivered your linen -- linens and things like that, and it -- when I was out there during the below-ground tests, the housing authority was in full work. There ought to be some records still out there on that.

MS. SCHUBERT: But I mean you -- you said you were there during below-ground, not above-ground.

MR. PRESLEY: That's correct.

MS. SCHUBERT: So does anybody know if those records exist for the atmospheric tests?

MR. PRESLEY: I don't know.

DR. ZIEMER: I guess we don't know the answer to that at the moment, and I think what Pete Turcic is saying is that Labor would in fact have to ascertain that information. In the absence of information, what happens? What's the default? If they cannot verify, how do you -- do you, for example, say well, we'll assume worst case, that they were on-site, or do you --

MR. TURCIC: It would depend -- like I'm sure that there were probably certain occupations -- it's my understanding there were certain occupations that would work, you know, a -- four days, then they would travel. And so if they fell into those kind of occupations which we have information, then, you know, we would assume that. But other than -- other than that, we would need some kind of information that, you know, verified that.

DR. ZIEMER: Okay. Thank you.

MS. SCHUBERT: So if I understand correct, if there are no records that exist for this, which happened more than 50 years ago, the default would be to assume they did not live there.

MR. TURCIC: We wouldn't necessarily just need records. I mean we could use affidavits and, you know, other -- other sources of information.

DR. ZIEMER: In other words, if the individual provided an affidavit that that's what they did, you would --

MS. SCHUBERT: What about the individual's survivor -- family member?

MR. TURCIC: As with any affidavit we look at,

you know, it's -- you have to look at the source and you have to weigh it and see how much probative value, you know, that affidavit has.

MS. SCHUBERT: I mean in general if it's like a -- generally it's a child or a surviving spouse. Those are the survivors. How is that generally weighted? I mean if somebody sends something in saying my father talked to me all his life about living on the site.

MR. TURCIC: We could use, you know, information, you know, such as that to say that they lived at the site. It -- again, it would all depend on, you know, the case-specific information.

DR. ZIEMER: And the weight of that affidavit versus --

MR. TURCIC: Exactly.

DR. ZIEMER: Yeah, okay. Thank you. Dr. Melius, do you have another comment?

DR. MELIUS: No.

DR. ZIEMER: Brad Clawson?

MR. CLAWSON: I have a question for the Department of Labor there. We keep hearing about this 250 days, and I know as many

petitioners have voiced before and stuff like that, is there any way for them to know that we are looking at adjusting this time period, looking at them living on there? Because a lot of people may say well, geez, I was -- I was only out there for three months or something like that and so I'm not going to apply because I'm not under -- I'm not under that 250 days. Is there something, an avenue of which we can help educate the petitioners on this?

MR. TURCIC: Well, first of all, since -- since it's currently not an SEC, it wouldn't matter how many days. You know, if -- if people had the illness, we tried to get to them and, you know, encourage them to file a claim. There -- you know, that is a good point, and now that this is an issue, we will look at, you know, the best way to get that information out. It is on our web site in our procedure manual, but we'll look at ways to -- you know, to better explain that to the claimant population.

MR. CLAWSON: Thank you.

DR. ZIEMER: Further questions or comments?

MS. SCHUBERT: This is Sandi Schubert --

DR. ZIEMER: Yeah, Sandi.

MS. SCHUBERT: -- and I do have one further question --

DR. ZIEMER: Sure.

MS. SCHUBERT: -- and it goes to the less than 250 days and the conflicts with RECA, and you guys have talked about legislative intent previously. It seems pretty clear that Congress in RECA made it clear that they intended people who were present during above-ground tests to be covered. I did not look up the legislative history for this particular conversation. I actually did not know that this was going to be the decision till a couple of days ago. It seems as though there is -- that you guys talk about sort of consistency. You're creating a double standard here for certain employees. Why in some circumstances would your rationale be that in above-ground tests it's deserving of compensation in one circumstance and not in another, and how do you guys know the amount of exposure somebody would have gotten from the above-ground tests when you've admitted that you cannot reconstruct dose? 'Cause I'm hear-- I've heard different numbers, 300 to 400 like at Y-12, anything over

100, I'm not sure where this all comes down. Senator Reid is concerned that this -- that people there during -- present during these tests be covered and compensated.

DR. ZIEMER: I don't know if -- Jim, if you're prepared to answer that. In part, of course, one of the reasons you have the Special Exposure Cohort is because you can't reconstruct the dose. I think both the Agency and at this time the Board, we are operating under our current rules, which spell out a 250-day -- I think any chan-- it would appear to the Chair that any change that this Board may wish to recommend, and this is aside from the weighting issue, becomes more of a generic problem, not just a site-specific problem, and would have to perhaps be handled separately as a -- as a -- an issue down the road. That doesn't preclude, if that occurred, revisiting that part of the group that didn't meet the 250-day requirement at this time.

Dr. Melius, you have additional comment?

DR. MELIUS: Yeah, I would suggest, and sort of parallel to our discussion on Pacific Proving Ground, that we also follow up on the Nevada

Test Site in a similar way. And I think we -- as you suggested, Paul, I think we need to, you know, re-evaluate this issue and then determine what's appropriate for going forward. Is there something that can be done within the current regulation, does -- do we need to recommend that the regulation be changed, do we -- or is there something that would have to be done -- done through the law, a change in the law. So I mean I think -- again, I would propose that we go forward and sort of evaluate that issue for -- for this site, also. We need to look at it. That should be part of our recommendation and that we keep this petition open in the way we talked about for the -- same way we talked about for the Pacific Proving Ground.

DR. ZIEMER: And at the moment the Chair simply identifies that as a possible issue. That's not an action item at the moment, but simply an issue that we must keep in mind as we move forward from this point.

Brad Clawson, another comment.

MR. CLAWSON: I just -- I'm needing a point of clarification because in reading parts of the site profile and so forth like this, you have

stated that there was universal badging that -- at Mercury and at the work site, but if I remember correctly, in -- universal badging didn't -- didn't start till what, '57, somewhere in there?

MS. SCHUBERT: '58.

MR. CLAWSON: '58. So -- so, to me, it -- it brings up an issue there that there wasn't that much badging --

DR. MELIUS: Yeah.

MR. CLAWSON: -- before that time.

DR. ZIEMER: Yeah. Clarify that, Jim?

DR. NETON: Yeah, I -- that -- I think -- you're true -- it's true the badging probably didn't start until that time frame. But again, we've gone through and we have external dosimetry results for 90 percent of the cases that have been forwarded to us that need to be reconstructed. We have confidence that we know what the external exposures were.

DR. ZIEMER: For those actual cases who have made claims.

DR. NETON: For those cases that have made claims. And with that -- with that type of --

DR. ZIEMER: Does that suggest these are people

from the tail end of the -- later than --

DR. NETON: That's a good question. I don't know the answer to that. But I'm -- I'm somewhat confused. If we're -- we're proposing to add this class based on internal exposure criteria, and if we were to add and say that now that we -- we can't do external dose reconstructions alone, that would leave us no recourse for external dose reconstructions, as well. We think -- we think the badges that -- data that we have are valid and we would use them to the extent possible to reconstruct those exposures.

Now if you're speaking to the issue that people were not wearing badges that were exposed to criticality events close up and personal, I -- I'm -- we find no evidence that that occurred.

MR. CLAWSON: No, I'm just -- I'm just -- it kind of bothers me a little bit that we're saying that we've got 90 percent of the badges and so forth for these people, but the badging didn't even start till basically '58, so we've got a time frame from '51 up to then that I -- I just question.

DR. ZIEMER: LaVon, you --

MR. RUTHERFORD: Yeah, I have clarification to that. Actually badging did begin earlier than that (inaudible) actually did badging. --

DR. ZIEMER: Hang on just a minute -- hang on just a minute, the mike is not -- is that mike on? It -- yeah, identify for the record for our court reporter by name here, too, Lavon.

(Pause)

DR. ZIEMER: Try it again. No.

DR. WADE: Why don't you come up here and...

MR. RUTHERFORD: Okay. Yeah, this is LaVon Rutherford with NIOSH. Actually badging began actually in the early years. LANL was doing the badging in the early years. REECo took it over in 1958, so we do -- that explains why 90 percent of the badging was -- occurred -- based on the claims we had.

DR. ZIEMER: So in fact there was badging done in the early years is what --

MR. RUTHERFORD: (inaudible)

MR. CLAWSON: What -- what -- was it universal badging or was it --

DR. NETON: No, he's saying it's not universal. There were -- there were monitoring programs in place and there were badges, but it wasn't

universal, issued at the gate, as we'd indicated previously for the entire facility. It apparently started in '58.

MR. CLAWSON: Okay.

DR. ZIEMER: Okay. Thank you. Further questions or comments?

MS. SCHUBERT: This is Sandi. I have one --

DR. ZIEMER: Yes, Sandi.

MS. SCHUBERT: -- last question. I'm sorry, could somebody explain to me how an episodic event is being defined such that explosion of a nuclear bomb doesn't qualify?

DR. ZIEMER: Yeah, let the Chair take an initial stab and then Jim Neton will help me out. It's quite true that the detonations themselves, in everybody's mind, is an episodic event. I think we're talking about episodic exposures, where the exposure itself is a very high value in a very short period of time, and you certainly get that in criticality accidents such as the Y-12 criticality that Dr. Neton referred to earlier.

In the case of individuals who are at -- not at forward sites or are either shielded or back when the detonation occurs, they do not get

this high dose, even though the event has occurred, simply because they are protected by distance or shielding. They do get a small amount of dose from that 'cause it's not always 100 percent shielding, but not an episodic amount. I think -- there's probably not a critical number, but it's not hundreds of rems like you get in a -- or rads that you would get in a criticality accident. Certainly they get exposure during that brief time period, but it's not up in that sort of episodic range. Jim, if you would add to that and --

DR. NETON: I think you've done the question far better justice than I probably could have.

DR. ZIEMER: I don't know if that answers the question, Sandi, but to understand the difference, we're talking about really the doses received by the persons.

MS. SCHUBERT: Does the reg talk about episodic exposures or episodic events? I thought the language was event.

DR. NETON: This is Jim Neton, and I'm trying to recall, and I don't believe it talks about episodic. I believe it talks about discrete events --

MS. SCHUBERT: Uh-huh.
DR. NETON: -- such as a criticality. I'm using recall, but --
DR. ZIEMER: We'll get the wording here --
DR. NETON: -- Dr. Wade is looking it up.
DR. ZIEMER: -- on this.
DR. WADE: Might I read -- and I'm reading from the -- the SEC rule -- I can give you the citation, it's 83.13 -- these things are so hard to find --
MS. SCHUBERT: the rule.
DR. WADE: -- 83.13(iii), for cases of employees that may have been exposed to radiation during discrete incidents likely to have involved exceptionally high level exposures, such as nuclear criticality incidents or other events involving similarly high levels of exposures resulting from the failure of radiation protection controls.
DR. ZIEMER: Okay. So we've been using the word "episodic events" here kind of in a generic way. It's not the language of -- of the regulation, but nonetheless, it has to do with the total dose received very -- in a very short period of time in these so-called

discrete events.
Okay, further questions or comments?
MS. SCHUBERT: I thought the second half of the question was how do you determine the dose received from the atmospheric tests so that you know it's not a large amount?
DR. NETON: Well, if we're speaking of the internal exposures, we know that that was delivered via particulate that was injected into the atmosphere and filtered down over time, and we have a sense -- from knowing information about fallout -- that it was not of the level of the dose received from a, as Dr. Wade read, a criticality accident.
In general, internal exposures are -- are not delivered at the levels of external exposures like a criticality event. One inhales these materials and one can only breathe about 20 liters per minute, so you -- it'd be difficult to inhale enough material in such a short duration of time to reach the levels -- to reach the thresholds that are indicated in the regulation.
DR. ZIEMER: Okay. Further questions or comments?

(No responses)

Okay, I'm looking to see where we are in the scheme of things here. We -- we at a point where we can consider motions on this recommendation?

MS. MUNN: I think Bob's prepared to do a motion.

DR. ZIEMER: Oh, Robert, yes, you've been waiting on the side there. I forgot, since I'm not seeing your -- your tent here. So please, Robert Presley.

MR. PRESLEY: As Chairman of the working group, I'd like to make a motion that we accept this SEC petition as-is, and also that we go back and look at this 250-day things change. Can we put that in somehow?

DR. ZIEMER: Okay. The Chair is going to rule that there are two motions there, one of which is to accept or to recommend approval of the petition, and I would understand that to be somewhat similar to the previous case since there's a weighting -- already a weighting issue and we'll let Jim speak to this.

DR. NETON: I just have a minor point of clarification. You should probably accept the

evaluation report as written rather than the petition, because they are different definitions.

MR. PRESLEY: That's correct, the evaluation report, I'm sorry.

DR. ZIEMER: So the motion is to accept the evaluation report. I'm not sure what that means in this context then.

DR. NETON: The definition of a proposed class as contained in the evaluation report.

DR. ZIEMER: Okay. Is that -- is that correct, what you're saying, Bob?

MR. PRESLEY: Yes.

DR. ZIEMER: Okay.

DR. MELIUS: Can I suggest that we sort of transform that into one of our usual letters -- as a friendly amendment to Bob's motion and that we, you know -- do that. And I think it's going to very much parallel the Pacific Proving Ground letter, so --

DR. ZIEMER: Yeah, well --

DR. MELIUS: -- I'd be glad to write something up and give it to --

DR. ZIEMER: I guess the Chair is really asking the following. The motion that Bob has

presented, in essence, is a much narrower motion. It's a motion to accept the definition of the class. It doesn't -- it does not itself recommend that -- I guess it doesn't recommend that we recommend that to the Secretary. Is that right, Bob? You're just recommending the acceptance of that definition? Or are you recommending the acceptance of...

MR. PRESLEY: Well, since Jim had brought that up, I -- I really think we ought to go ahead and accept the petition, 00055.

DR. ZIEMER: Okay, that clarifies it then. I think in that case, if it's agreeable to you as the mover, we will put that motion on the floor and have it seconded. And if it's agreeable, defer action so that we can get it worded in the more technical wording approach that we use with all of these petitions, and I think Dr. Melius is offering to so word that, if it's agreeable.

MS. MUNN: I second.

MR. PRESLEY: It's agreeable.

DR. ZIEMER: It's agreeable with the mover, and it actually doesn't re-- the motion didn't require a second since it comes from the

workgroup, but -- so if it's agreeable, we will defer an actual vote on this motion that -- the motion is the -- the intent is to recommend approval of the petition. We want to get the motion in the appropriate words so that we can act on it formally and we can actually take that action tomorrow afternoon, as well, I believe.

DR. WADE: Starting at 1:-- probably at 1:30.

DR. ZIEMER: After the action on the other SEC petition.

DR. MELIUS: And in --

MS. SCHUBERT: Can I ask for clarification? Is there going to be an -- is this just to accept it as written or to accept it as written and deal with the 250 days?

DR. ZIEMER: The motion is -- as it will come before us tomorrow will be to accept -- or to recommend approval as written. It will also include the idea that the 250 days will be weighted, as we talked about for the previous motion on the other -- on the Pacific Proving Ground site.

We will have to separately deal with the issue of what had been called discrete events and

days less than 250 as a separate generic issue that covers more than either of these sites. So the Chair's interpretation of what action has been called for is approval of this recommendation. Our approval would go to the -- or our recommendation for approval of this class would go to the Secretary for his appropriate action.

Sandi, did --

MS. SCHUBERT: Thank you.

DR. ZIEMER: -- did that clarify it or make it worse?

MS. SCHUBERT: It actually clarified it. I greatly appreciate that.

DR. ZIEMER: Yeah.

DR. MELIUS: And Bob, I'll e-mail you the letters tonight.

MR. PRESLEY: Okay, thank you, Jim.

DR. ZIEMER: So without objection, we will what amounts to table action on this. I'm not going to formally call it tabling. We'll just defer voting till we get the motion worded in the standard fashion that includes all the caveats as to when the motion -- or when the letter has to go to the Secretary and any additional words

that we may need to help us clarify that 250-day weighted day issue.

DR. WADE: If I might ask for a clarification. I also take it from the discussion that the Board will take up tomorrow how it wants to deal with the issue of -- of criticality events or exposures and the result--

UNIDENTIFIED: Discrete events.

DR. WADE: -- discrete events and -- and the result of that will be to keep that issue open and alive as we proceed forward.

DR. ZIEMER: I believe that -- that's certainly my understanding of it, and that -- I think that allows us to proceed with these two petitions without -- and allows the opportunity for later changes, if needed, without halting their progress by another issue coming into play.

DR. MELIUS: Can I just -- it -- it -- we can discuss the details of this tomorrow, but I -- if I recall right, our past practice has been to -- in our letter to the Secretary is to document that we are, you know, only dealing with part of an SEC petition or, you know, we're not ruling fully and that we're keeping

it open and -- and that's what we had talked about with Pacific Proving Ground. I think we would do the same with the Nevada Test Site.

DR. ZIEMER: I would expect wording to be quite parallel in both of these cases.

Thank you very much. Thank you, Sandi, for being with us. You're welcome to stay on the line, but we are going to move ahead here for the moment.

MS. SCHUBERT: Thank you all very much.

DR. WADE: And Sandi, we -- this is Lew Wade. We will be taking up this issue again tomorrow, starting at 1:00 the broad discussion. We'll do Pacific Proving Grounds first and then Nevada second, so if you're looking for a more precise estimate, 1:30, quarter to 2:00. But if you were back with us at 1:00, that would be good.

MS. SCHUBERT: Okay. Thank you very much.

(Pause)

CONFLICT OF INTEREST DISCUSSION
DR. LEWIS WADE, EXECUTIVE SECRETARY

DR. ZIEMER: Okay. The next item on our agenda is the conflict of interest discussion. I don't know if we'll be able to finish this before lunch, but we'll perhaps get started on

it. Dr. Wade will kick this off and then we'll see where we are, time-wise, at -- at -- when we get to the noon hour.

DR. WADE: Thank you, Paul. I'm going to be referring in my discussions to information that should be available to you in terms of a draft conflict of interest policy. Attached to that is also this wonderful chart -- flow chart that sort of describes how decisions will be taken. I'll be referring to the text, not to the flow chart, in my comments.

Let me just make some introductory comments and then get into my explanation of the materials in front of you.

There has been a great deal of discussion -- and there will continue to be, believe me -- in our life of conflict of interest. Early on when NIOSH had issues raised to it -- and again, it's been handed out to you again, some material submitted by a friend of the program, Richard Miller, raising conflict of interest concerns, and we've put that before you again just to remind you of some of those early concerns.

Early on there was an attempt to try and put

band-aids on conflict of interest policies and deal with issues as they came up. The NIOSH Director, several meetings ago, decided that the only way to effectively deal with this was to really take it back to whole cloth and to look at putting forward a policy that -- that was consistent into itself and represented NIOSH's overall issue on -- and overall policy on conflict of interest, with the understanding that once this policy was vetted and agreed upon it would form the basis of many of the specific policies that would have to be in place for other entities that are covered and involved in the program. So this is an attempt to try and develop that over-arching policy that is consistent into itself and would form as the ba-- would form the basis of other policies that would be developed.

What we're doing today is bringing you the latest draft of that policy. We would be very interested in hearing Board comments on it, and possibly the Board could take this issue up tomorrow and offer a general opinion of the Board. Short of that, we would welcome individual Board members' comments on the

policy as it's been presented to you. We'll be collecting up those individual comments, and I'm sure that at the next Board meeting you will see the next draft of this policy for the Board to consider and -- and react upon.

I will tell you that as NIOSH moves forward with this general policy we are trying to live true to it as we move forward. We understand that it'll be a document that's continuing to evolve, and we will attempt to live forward -- to live consistent with the draft that we have in front of us. We think it is important that we not wait for this process to be over to try and engender some of the principles contained in the policy. We understand that there will be further review and further drafts and -- and we'll remain current with those drafts as we move forward.

So let me try and walk you through the policy as -- as quickly as I can. And it all begins -- and I'm referring, again, to the document that you have in your books as a draft. It really begins with a statement of purpose, and I'll refer you to the third paragraph of the statement of purpose. This is where NIOSH sort

of lays out its concerns in the area. And it says (reading) This statement of policy balances two competing values. First, NIOSH wants to ensure that it obtains all available factual information about radiation doses received by workers having potential benefits under the EEOICPA program, from all relevant sources including those individuals having any past or current employment-related financial, professional or organizational relationship with the Department of Energy, an Atomic Weapons Employer, contract operators of DOE facilities, or with other parties having a stake in the general or particular outcome or outputs of the Program. Second, NIOSH wants to ensure that all scientific judgments contained in key Program function documents that are made by NIOSH employees or its contractor's employees about dose reconstructions are free from potential or actual conflicts of interest. So again, that paragraph tries to define these two competing values. We want to make judgments that are free from conflict of interest, and yet we want to make those judgments in the full light of information

available. And this sort of establishes the tension that exists as one approaches a conflict of interest policy.

Secondly, I'll address the issue of covered entities, and that's really quite well-stated in section 2.0 of the document, and the shorthand code is that covered entities are really anyone involved in the Program. We go through a litany there that -- that talks about DOE, NIOSH, other Feds, contractors and subcontractors. We really intend this policy to -- to cover all entities involved in the Program.

The third piece I'll speak to are actions that are required by the policy, and there I refer you to section 3.0, and in the heading you see the two action paths that result from the policy. One is disclosure and one is exclusion. Okay? If you read through the words and terms of disclosure, we think that everyone associated with the Program needs to disclose information that is consistent with the answering of the questions concerned in section 3.0. I'll talk more about those questions, but everyone needs to disclose.

The second path is exclusion. Based upon the answers to the question in 3.0, the judgment could be made that people have a conflict of interest; and if so, they are excluded from certain actions. So again, remember, two -- two pathways. Everyone discloses. If it's determined that you have a conflict, then you are excluded from certain actions.

Now what those actions are are listed in section 4.0, and they're defined as key Program functions. So again remember, if you are determined to have a conflict, you are then excluded from certain actions, and those actions are listed as key Program functions. I can go through them very quickly. Obviously those key Program functions include dose reconstructions. They also include site profile document owners, people who are responsible for site profile documents. Let me read you that section because I think it shows the breadth of what we're trying to accomplish here.

(Reading) A site profile document owner is responsible for coordinating and drafting all site profile documents, ensuring all relevant

information is captured in the document, evaluating the information, and establishing or setting forth findings or conclusions. The site profile document owner is the primary writer/editor of the site profile document. The site profile document owner has an affirmative duty to seek out all relevant data and to objectively evaluate all relevant input, with no special consideration given to the source (site expert or subject expert). All narrative or quantitative input to the site profile documents must be clearly attributed to each source, whether it appears or is relied upon within a site profile document -- whenever it appears or is relied upon within a site profile document. In addition, both site and subject experts shall be clearly identified on the approval page of every site profile document to which they contributed. And lastly, a site profile document owner is responsible for any and all revisions to a site profile document.

I read that because it sort of defined the breadth of what we're trying to do there, and what a document owner is responsible for and

what their duties are. And it also brings in the fact that we're not only talking about the original issuance, but we're talking about all revisions.

It goes on in 4.3 to talk about Special Exposure Cohort petition evaluation document owners. We well know what they are, and I won't read you those words.

In 4.4, Technical Information Bulletin owner, and again we know what Technical Information Bulletins are. They could refer to a site or a number of sites. And again, you can read the specific words of 4.4.

4.5 takes us to a slightly different area, and now we're looking at reviewers of key Program function documents. This is where you, the Board, appears for the first time. Again, we are very cognizant of the fact that we need to guard against conflicts of interest where people with conflicts performing the review of key Program function documents.

And finally, in 4.6, we're concerned again that these conflicts not be present in people who approve -- have approval authority on the documents listed above. So it's not only the

authoring and the owning of the documents, but the reviewing of them and the final approval authority. All of these things are considered under this policy to be key Program functions. And again, people with conflicts would be excluded from performing those functions.

Let me go on. In section 5.0 we list, for completeness, non-key Program functions. These are again functions that could well be performed by people with conflicts. And again, I won't read that to you except to refer you to section 5.3, which is the first time that the Board is specifically called out in terms of exclusions and remedies. What 5.3 tries to say is that there are certain issues that the Board takes on that Board members can take on even if they have conflicts, but there are other activities that the Board takes on where those conflicts would cause exclusions. And I think you all know what they are. For completeness purpose, I'll very quickly go through them.

If you are conflicted on a particular site, then you cannot be the individual responsible for overseeing the review of that dose reconstruction, the dose reconstruction for

that site.
If you are conflicted at a site and there is a site profile discussion, you can be at the table. You can participate in that discussion, but you can't make a motion or vote on that site profile.
And if you are conflicted at a site where there is an SEC petition, then you have to absent yourself from the table. You can't participate in the discussion at all, save as a member of the general public during the public comment period. Obviously you can't move or you can't vote.
So then we come to the most difficult of the questions here, and that is who is determined to be conflicted. Again, section 3.0 goes into that. What I would like to do is to very quickly give you a snapshot of six groups that are conflicted based upon the policy as it's currently written.
I'll remind you that for the documents we're talking about, it will normally be a site associated or multiple sites associated. There will also be a time frame associated with it.
If we're looking at a Special Exposure Cohort,

it covers a particular time frame. So I will be referring to specific sites and particular time frames as I go through my comments.

So now to a brief explanation, and hopefully a simple one, of the six pathways that could lead to a determination of a conflict.

The first is really quite -- quite straightforward. If you currently work for DOE, then the judgment is that you are conflicted.

Second, if you ever worked at the site in question, then you are judged to be conflicted at that site.

Okay, those two are fairly straightforward. By work -- we define work in the document. It needs to be defined in this case, and I'll read you that brief definition of work. The term "work" means employment related to managerial, scientific or occupational safety and health matters for that operator and for that operator's subcontractors related to atomic weapons activities at the site. So that's what we mean by work. So if you worked at the site, then you are judged to be conflicted.

Now the third of the six paths I'm going to

define to you starts to become a bit more complex. You would be conflicted if you currently work for the present or past operator of the site. So again, if you current-- if you currently work for the present or past operator of the site, then you are judged to be conflicted. Okay?

Number four -- and again, these get increasing-- increasingly more complex. You are judged to be conflicted if you worked for the operator in the past and during the time that the operator operated the facility, and during the time frame of the key Program document. Okay? So there are three things there. You worked for the operator in the past; you worked for them during the time that the operator operated that site; and you worked for them at -- during the time that covers the time frame of the document under consideration. And lastly, your work had impact on that site.

Now remember, if you ever worked at the site, you're excluded, so now we're dealing with situations where you might have worked for that operator, not at that site but at some other site, and these are the tests that would be

used to determine if you were indeed conflicted.

The fifth test is you worked for DOE in the past. Remember, if you work for DOE now, you're conflicted. You worked for DOE in the past and your work for DOE included substantial involvement with the site in question during the time frame in question. And we have a number of people who worked for DOE. The test that they -- that worked for DOE in the past. The tests that they were taking were did you have a substantial involvement with the site in question during the time frame in question. That would be the test used to determine if you had a conflict, given the fact that you were a past DOE employer.

And lastly comes to what I think is the most difficult -- and in fact, in my considered opinion, the most ill-defined of the tests -- and that refers to section 3.11, and I refer you exactly to that. This was an attempt by the authors of the document -- and these people worked extremely hard -- to deal with a wide range of issues, and I'll read, (reading) do you or did you have any financial, supervisory

or subordinate relationship with DOE, the operator, any former DOE or operator employee, employee survivor or attorney representing any of these parties.

What that's trying to get at -- if, for example, you did expert witness work, be it for DOE or be it for employees or plaintiffs, then you would be found to be conflicted under this. If you had a financial relationship, or even if you gave testimony and did not -- were not funded for it, were not paid for it, if you did that under the supervision, quote/unquote, of an attorney who was working that issue on either side of the bar, then you would be considered to be conflicted.

This also goes to issues of subcontractors and their relationships. In fact. 3.11 will be the place you would go to start to understand whether Salient, the subcontractor associated with SC&A, would be found to be conflicted, given the information we talked about in terms of SC&A's involvement with the Nevada Test Site. This 3.11 captures a great deal of information and needs to be thought through, and we certainly welcome Board or individual

comments on 3.11 -- 3.11 is really sort of an "all others" kind of a category. There are many situations you could imagine, and we wanted to be sure that we covered all of them. I offer you that as a construct. I welcome your comment.

The last part of it, and then I'll stop this long monologue, deals with compliance, and you can read compliance in section 6.0. I won't paraphrase it for you. But again, we -- we think the entities involved, the corporate entities, the -- the government entities, are responsible for monitoring compliance. We also think individuals are. But we think overall NIOSH has a responsibility for determining verification with the policy, as practiced by everyone involved.

So this is a -- I'm sorry for the long-winded discussion, but I wanted to try and give you a context of the document in front of you. I find it a meaningful document. I didn't write it myself. I think it's an attempt to try and deal with this issue on a -- on a broad basis. I appreciate the fact that it will raise issues that need clarification. We wanted to put this

draft before the Board. We welcome comments from the Board collectively, and we certainly welcome comments from the Board individually.

DR. ZIEMER: Thank you very much, Lew. So at this time, this is a draft. It's -- at least in part is in effect, though, already. There are certainly many pieces of this that you've described that are already in effect.

You -- NIOSH is seeking individual comment or Board comment on this?

DR. WADE: Both.

DR. ZIEMER: Both?

DR. WADE: And based upon whatever we receive from this meeting and subsequent to this meeting, we'll bring another draft to the Board at its June meeting. Possibly then the Board might want to spend more time deliberating. I leave that to the -- to the desire of the Board.

DR. ZIEMER: Okay. What we can do at the moment is take a few comments or questions. We may want to return to this tomorrow at some time, if -- if the Board has particular issues that they think need to be addressed -- addressed collectively. Some of you may have

individual issues as -- in terms of how this is interpreted. I certainly will myself because I see a new paragraph in here which will greatly impact me, but -- I may not be qualified to be on any of these.

Okay, Jim --

DR. MELIUS: Yeah --

DR. ZIEMER: -- Jim Melius.

DR. MELIUS: I -- I way -- I -- I actually think we need to sort of digest this a little bit in order to have full comments. I think your comments were helpful and I understand some of the intent of things that I didn't understand before, and I still think there's some rewording and I have some questions on how extensive some of these are as they would apply to certain types of -- of individuals.

My question is -- is where are we actually in the -- with the implementation of this? I think Kate Kimpan at our last meeting, or maybe the meeting before, had talked about that -- that they were -- ORAU was in the process of implementing their new policy. Then we had another policy that -- that came out. Now we have a sort of a third policy that -- that's in

place and we also have the question of -- of retrospectively dealing with a large number of -- of documents and -- and , some of which are actively under consideration by the Board where -- where this policy is -- current policy you're proposing is -- has been -- been violated, and how do we address those and has there been any thought to that and -- and I guess -- so I -- my question is, one, what is the current implementation; and secondly is what are we going to do about going back in time.

DR. WADE: Well -- and I'll answer the question and then certainly Kate or any of the other contractors is welcome to come forward. We're in fairly consistent communication with the contractors on this policy as it evolves, and we are asking the contractors to review not only their current work and their current staffing, but also conduct a retrospective review of work that they've done and report to us on conflicts that they find existed relative to the policy as we're pursuing it and remedies they intend to follow.

DR. ZIEMER: Okay. Kate, did you want to

comment? No.

MS. KIMPAN: Okay.

DR. ZIEMER: Never pass up an opportunity to comment.

MS. KIMPAN: Lew characterized it exactly right. As you know, it's quite unusual in any world to take a new reformed policy or -- not on?

(Pause)

MS. MUNN: That microphone is apparently worthless.

(Pause)

MS. KIMPAN: I think Lew captured -- Lew captured it very well. I'd like to -- this is all on the record -- but just state clearly, there was a COI policy in force with which we, the ORAU team, believe we were in compliance throughout the beginning of this project, so I don't want any of this to create the impression there was no policy. There was a policy in force. The policy's currently changing. Although it hasn't been finalized, what Lew said is accurate. We are looking both to assure our compliance with this policy, the draft that you're looking at -- there've been

some changes between the prior draft Dr. Melius referred to and this one -- but the identification of who can do what role on these very important tasks is quite consistent between this and the immediately prior iteration.

So we're doing two things as the ORAU team. For all going forward documents that we're involved in, in all aspects of our project, we're assuring compliance with this version of the policy -- meaning when someone via this draft is identified as a conflicted individual, there are certain restrictions upon the role that they can take in a going-forward way. There are some challenges to that operationally, but it gives us no heartburn at all. When the policy is finalized we'll come forward with what we believe is our analysis of what we've done and what we've done to assure the good quality of our work.

Although it is quite unusual, we're also going to take this policy and view things done under a prior policy through the lens of this policy. We want to do that for a number of reasons, and Lew stated them. We want to make sure that

folks are satisfied with the good quality of our work, and also our forthrightness about declaring who had what roles and positions. We believe that all of our prior work and all of our current work is very good quality. It goes to a bunch of different authors, different quality assurance methods applied; many, many hands and eyes are on these proj-- products. One of the things that we're going to do for any document created under the prior policy is to review, under this policy, whether any of the folks in key positions would have had problems under the current policy. If we find that to be the case on a document that's already been completed, we will conduct a full, independent review of the findings in that document. Let me say I expect our findings to stand, but we will provide an independent review for someone who's not conflicted or not perceived to be conflicted to assure that every finding, every item in that document that can affect what is going to be done on a worker, on a document, is considered.

For the going forward documents that are either under routine revision or not yet completed,

when we found folks to be not in compliance with the current policy, we've endeavored to change them out immediately and put a document owner in place that, as Lew read, has very rigorous responsibilities upon them to assure that the conclusions in that paper are accurate. We're doing that going forward.

For all documents -- present, future and past -- we will go through, as a separate exercise from this, and do full annotation and attribution. As Lew said, even if somebody is totally fine in the position they're in on a document, it's very important that the Board, that NIOSH, that the public know who suggested what things in a document, where the findings are from, what the scientific basis of any conclusions or direction or tabular information we have is.

So for all documents going back, whether there was a conflict or not, we will go through every one of our documents and we'll provide -- we will provide both attribution and -- and as full a sunshine as we can get on how those documents were developed, what the process were -- was, and who the contributors were.

In some rare instances where we've found that the current policy would not have been in effect prior, we will also conduct an independent review of those findings. But even if there's no problem at all, if everyone on the document was totally appropriate under the old policy and the new one, we'll still go through and do full annotation and attribution. We want to make sure that these documents are viewed as credible by the folks that they're affecting, the folks that are using them, by this Board and others.

DR. ZIEMER: Okay. Thank you, Kate. Mark has a comment.

MR. GRIFFON: Yeah, you might want to stay up there. Just to -- I just want to clarify. Is -- under this current proposed policy, if a document owner -- a site profile document owner or a Special Exposure Cohort petition evaluation report document owner -- can they be a site expert or subject matter expert? I'm a little confused if they're exclusive or if they can overlap. Can a person be an owner and also identified as a site or subject matter expert for the particular report?

DR. WADE: Well --
MS. KIMPAN: This policy -- I'm sorry, go ahead.
DR. WADE: Well, I mean -- I think -- I think the answer is that they cannot be a site expert. They cannot be conflicted and be a document owner, but they could be a subject expert.
MS. KIMPAN: And an individual could be -- Mark, an individual could be in both categories, a site and subject expert, and that would have different constraints depending on what project they were working on.
MR. GRIFFON: Right.
MS. KIMPAN: I could be both a subject expert because I know a whole lot about a thing, but I might have gotten that knowledge at a particular site --
MR. GRIFFON: Right.
MS. KIMPAN: -- so my subject expertise could be used, although clearly identified and declared. As the site expert, I would not be in a position to own that document.
DR. ZIEMER: Brad Clawson.
MR. CLAWSON: Maybe -- maybe I didn't hear you

quite right when you was bringing this out. You were saying that you were going back and looking at some of the past documents that you've already done. Now is this going to be independent from your group or is it you doing it yourself?

MS. KIMPAN: The review of what the -- the -- a lot will be done on all documents that went in the past, Brad. Our group will -- my group, the folks that work for me, will go through and do the annotation and attribution. The folks that developed the documents and were part of very large teams are going to need to provide information to someone I've assigned to oversee that part of the project. So we'll go through each document and assure that we're saying where we got our conclusions, what our scientific findings were based upon. That'll go on for every document.

If there's a document that we have already produced who -- which was produced under the prior policy, in compliance with the prior COI policy, but under this new policy with different aspects and restrictions the person would not be an eligible document owner, if we

have a situation where a component or an entire document was owned by someone under the current -- the not-yet-implemented policy would be seen to have a conflict, that document will go into a special category where not only will the attribution and annotation occur on that document, additionally we will conduct an independent scientific review of the findings in that document. Will it be somebody that works for me? It'll be somebody I hired to do that, so yes, it will be a member of the ORAU team for purposes of doing this. It will not be, for what it's worth, likely the same -- it -- it won't be the same individuals about whom there are questions, certainly.

MR. CLAWSON: I -- I guess -- I guess the point I'm looking at is this Board and everything else in it and its transparencies and stuff like that that we've tried to -- to bring forth, I want -- it -- to me, it kind of sounds like you're looking at yourself again. And if you've already got a conflict of interest, you've got another one there. Myself, I'm wondering if there's an outside group that could basically, you know, over-check your

conflict of interest. I know we have legal counsel that checks into us quite -- quite frequently and they're independent from us, and I was just kind of getting the feeling that you're looking over your own -- your own self.

MS. KIMPAN: We -- we will have -- for what it's worth, we will use both resources at NIOSH and our own. When you're talking about a legal determination, are we trying to figure out if Kate Kimpan is conflicted at a certain place, if need be we'll rely upon legal help -- NIOSH's legal help for that.

For the discussion that I'm doing about the review of documents, we see that as a scientific process. And after the annotation and attribution are completed, we believe that we can field a proper review team. I -- I hope that answers. I -- I think I understand what --

DR. ZIEMER: Well, he's asking really whether it should be an external, independent review team --

MR. CLAWSON: Yeah, I --

DR. ZIEMER: -- versus an ORAU team.

DR. WADE: Well, I think it starts within ORAU,

but then it will come to NIOSH. NIOSH will review it, then it will come to the Board. The Board will review it. It's quite possible the Board will ask its contractor to review it. So Kate is just talking about the internal ORAU step that goes first. Then it will come to NIOSH for independent review and eventually to this Board.

MR. CLAWSON: Okay, that's --

MS. KIMPAN: We expect a lot of sunshine, Brad. We -- we want our findings, our documents to truly be beyond refute, so hopefully everyone with an interest will review these documents as -- as we refine them and fix anything under this new policy that might have differently under the prior.

This -- is this also a time where I should declare yet another --

DR. ZIEMER: No --

DR. WADE: No.

DR. ZIEMER: -- no, not really now. Jim Melius, you had another comment or question?

DR. MELIUS: No, I -- thank you for that clarification. I think it's very helpful and -- but I would just ask the -- two things. One

is that we try to -- on the documents and the sites we're currently actively looking at, some of the SEC sites and so forth, that -- that we try to get the -- on -- if necessary, the appropriate document owner in place and -- and up to speed on this because I think we need to -- needs to be clear that -- that there's that kind of review and ownership going on.

And secondly, to the extent that we can -- that it's feasible to get this new annotation done, I -- that's going to be -- I realize a large task and I hope we could prioritize it in a way so that we start with documents that we're currently looking at 'cause I -- that type of transparency I think would be very helpful to the -- to the process where we'd know where things came from -- you know, what the sources were and so forth. And I think it's very helpful for all of us in looking at these documents.

MS. KIMPAN: Thank you, Dr. Melius, very helpful comments. I also offered at the last Board meeting, in this same vein, that as we develop information -- of course the policy is yet unfinalized, but as we develop our

information and our analysis, we expect to provide to OCAS to bring to you all or provide directly to you all what we believe we've found so that you can review our findings under this upcoming new policy and assure that our conclusions about who was and who wasn't conflicted in past documents are the same thinking that you all would have. So as -- as soon as the policy's finalized, we'll have an analysis close behind.

We're looking at that very carefully right now. We're not not working on this, but until the policy is finalized it would certainly be premature to analyze a final answer on who might have had a conflict in the past.

DR. MELIUS: Yeah --

DR. ZIEMER: Thank you.

DR. MELIUS: -- but I think the annotation will be very helpful to sort of redressing some of these past issues, just again, the transparency.

DR. ZIEMER: Will be very helpful, regardless of the policy, yeah.

MS. KIMPAN: Any -- any guidance the Board -- we of course -- as Lew said, we're working very

closely with NIOSH as we prioritize how we're going to do the past review. We'd certainly welcome any -- any direction and instruction on how y'all would like to see that occur, as well.

DR. ZIEMER: Thank you. John Mauro, a brief comment.

DR. MAURO: Very brief. I noticed a lot of -- I listened carefully, Dr. Wade, on -- a lot of the language and discussion we just heard had to do with an individual and ownership as a expert resource. However, I guess I didn't hear too much about what I would call organizational conflict, which goes to -- toward a corporation that has a contract and not -- not so much the individual now, but more which contracts that they may hold as an organization might in fact create a conflict situation. I think that's perhaps even more important or an even larger scale type of question, and I did not -- I have to admit, I did not hear too much about organizational conflicts. I may have missed it, but I certainly will look very carefully at that.

DR. ZIEMER: Does that need to be addressed in

a separate --

DR. WADE: Right -- why, yes. See, what we're trying to do is to put together the intellectual piece that's the foundation for everything. That would then be taken and used to develop the specific policies that would deal with our contractors and subcontractors. And in that situation, the tenets of this policy would be embodied in terms of any corporate limitations or responsibilities. We also do try to deal with it in terms of the financial independence in section 3.11. But I'm aware of the point you raise, John, and we would like this to be the document that would be used to develop those particular conflict of interest policies that would relate to our corporate entities.

DR. ZIEMER: Thank you very much. Richard Miller is approaching the mike --

DR. WADE: Richard has standing.

MR. MILLER: Process question, which is -- Dr. Ziemer, I understand that on the agenda there's a public comment period this evening, but I would presume that that should be largely reserved for folks from Rocky Flats.

DR. ZIEMER: Well, we announced earlier that actually will be open to others, as well, but --

MR. MILLER: Well, let me just get to the point, which is that this particular issue revolving around this conflict of interest policy may have been well-vetted between contractor ORAU and NIOSH, but I have to say that this could probably merit from some public input, as well --

DR. ZIEMER: Sure.

MR. MILLER: -- and if there was a way on the agenda that that could be either provided for now or at a future date, depending on when this is going to be finalized, I'd appreciate it 'cause I have a long list of questions that grow out of the complaint we filed on Paducah back over a year ago that seems to be driving some of this policy.

DR. ZIEMER: Yeah, understood. Thank you.

DR. WADE: I think, Richard, it'll be our intent when we meet in Washington, which is an appropriate place, to have the comment -- public comment period address specifically to this issue.

MR. MILLER: And so therefore the -- this conflict of interest policy won't be put into effect until that point in time. Is that correct?

DR. WADE: It certainly won't be finalized. As I mentioned, we are trying to work within the tenets of it as we move forward. We don't want to wait until the policy is finally approved. We are trying to live consistent with it as we deal with our different contractors and subcontractors.

MR. MILLER: Well, at least in one material respect, and I don't want to turn this into that comment period, but at least in one material respect, unless one can clarify this -- maybe it's my misreading of this document, but this policy is in fact far less protective of -- of conflicts of interest than the one that is currently in effect that Dr. Howard I think sort of patched up, which was the original ORAU policy, to deal with the Paducah conflict issue that arose and he took some, you know, interim steps. My understanding as I read this is is that site experts as well as subject experts, neither of these fall into the

category of what one would call a key project function, and so if they're not key project functions, if a site expert and a subject expert are not key project functions, then exactly how their COI applies here I guess could benefit from some clarification because right now that restriction's in place and that's why I ask.

DR. ZIEMER: Thank you. And we're not actually going to get into that discussion right now, but keep that on the back burner. We'll have opportunity to revisit this issue even tomorrow if --

DR. WADE: Right.

DR. ZIEMER: -- needed and have further discussion, and then I think I heard that it could be on the agenda for the June meeting as a specific item.

We need to recess for lunch, and let's do that; return in an hour and we'll pick up from there.

(Whereupon, a recess was taken from 12:15 p.m. to 1:35 p.m.)

DOL'S PROCESS FOR DETERMINING CLAIM ELIGIBILITY FOR AN SEC CLASS, MR. PETE TURCIC, DOL

DR. ZIEMER: Okay, we're ready to reconvene the afternoon session. The first item on the

agenda this afternoon is a presentation by Pete Turcic from Department of Labor. This deals with the DOL's process for determining claim eligibility for an SEC class. So Pete, welcome back.

DR. WADE: Possibly as Pete's getting his notes arranged, we do have two Board members on the telephone. Is that correct? We have Dr. Lockey and Mr. Presley on the phone?

DR. LOCKEY: Yes, that's correct.

MR. PRESLEY: This is Bob Presley; I'm on the phone.

DR. ZIEMER: Yeah, thank you.

DR. WADE: Good, just wanted to make that clear.

MR. TURCIC: Thank you, Dr. Ziemer. I just want to thank you for giving me the opportunity to give a presentation to the Board to try to better explain, you know, what we do and how we do it in order to put a -- an individual claimant into a SEC class. And to do that, let me just real briefly explain some of the normal claims processing.

And basically what happens is, you know, we -- we have to make a determination of whether

there was covered employment, and that -- that may sound simple, but oftentimes that's not as simple as it may appear because you have many subcontractors and we've developed a lot of methods of trying to get information where there is very little or no records at all available. And then we also have to make a determination of a covered condition.

Now once the District Office -- once our District Office receives the claim, then we set up a case -- we create a case in our case management system, and it's assigned to a claims examiner. And the first two things that the claims examiner has to do is employment verification, and normally that is more of a just a general employment verification, wa-- you know, was the individual at work at a particular site.

Now in the SECs, the newer ones, sometimes we have to go into a little bit more, you know, in depth to try to put them in a specific location in a -- in a certain site. And -- but the same techniques and the same kind of issues, you know, arise there.

So the claims examiner then proceeds with

employment verification, and the way that's done, it's -- we take what the claimant is claiming, the employment, and we send that to either DOE -- the law basically requires DOE to verify employment for us, so it'll go to DOE and -- or there were a number of what we call corporate verifiers and these corporate verifiers are corporate -- corporations, usually involved the AWEs but sometimes at a DOE facility, where we'll go directly to the corporation and they'll provide employment, you know, information.

A lot of times that, you know, is not sufficient, and we may go to Social Security Administration, and then we also have a contract with the Center to Protect Workers Rights, and they have access to a lot of -- specially for contractors. They have access to a lot of information such as pension records, other information, dispatch records for unions, and they'll search those records and oftentime can find and verify employment that, you know, we were unsuccessful. Those are really our, you know, toughest of the -- of the cases.

And then we also use things like affidavits

that -- from coworkers. And again, when it comes to affidavits and things like that, the -- you have to weigh the totality of the evidence. And depending on who the affidavit is from and different situations, there may be -- it may get different weight.

Now once we ha-- make a determination of employment, then you know, we have to also determine whether -- the medical condition, and the same types of things happen in -- in making those determinations.

Now the way that happens is once the claims examiner gets -- you know, what the claimant filed, submitted, then the claimant'll get back -- it's -- it's a back-and-forth with the claims examiner and the claimant. And I need to stress here that unlike most workers comp systems, this is a non-adversarial process. And by that I mean there's not, you know, one side trying to refute what, you know, a claimant is claiming. And so basically the claims examiner is working with the claimant trying to perfect that claim as much as they can, and then looking at the totality of the evidence, make -- make their decision.

And I think a good point is that, you know, claims -- claims processing is really all about drawing lines. I mean that's -- you know, the claims examiners have to draw lines and look at the -- the total case and then make a judgment and, you know, each case is, you know, very different.

Now one of the things that we need to do, and we do, is we have to give the claims examiner guidance. And we do that on each of these SECs because, you know, without that there just would be no uniformity. So you know, when you have nearly 400 claims examiners doing this work, we spend a lot of time developing our policy guidance and our bulletins.

Now as for the details of actually making a determination at a SEC, first let me -- I'll talk about just briefly the statutory SECs. At Amchitka, for example, what was required was presence. But then it went further and said the individual had to have been exposed to ionizing radiation. Well, in that case there was very few records that would indicate any kind of exposure. So in our policy development there, we looked at it and did some research

and found that after the first shot there was breakage to the surface and therefore we made a policy determination that presence equated -- after the first shot equated exposure to ionizing radiation.

At the -- at the gaseous diffusion plants the -- what is required is that they worked at the gaseous diffusion plant for an aggregate of 250 days, and I did -- you know, explained that we do modify that in determination of the 250 days. But it also went on to say they had to have been monitored or in an occupation that had similar exposure to those that were monitored. And so there again we had to make policy determinations. And where we came out on those was that after the -- after radioactive material started showing up at those facilities, then we assumed -- because under current practices everyone working there would have been monitored, we assumed that everyone should have been monitored and that's how we apply that.

Now there's a lot of other issues that go along with that, though. Some other issues are because subcontractors are included and so are

people providing services, and those kind of issues raise -- you know, are difficult to adjudicate and -- but we had to adjudicate them. And to give you some examples, you know, we had a lot of claims from the railroad workers, people who worked on the railroads, and in combination with some legal opinions we came out that the mere delivery of goods does not constitute providing a service. So with the railroad workers what we need to do is if they merely brought materials to the site, such as coal, and loaded and unloaded it, they are not covered. If they did maintenance or construction, then that made them eligible. And the reasons we've got to do these things, if you didn't have -- if we didn't apply these -- I mean if you stop and think about it, I mean you have everything from people who come in and fill the vending machines -- I mean that is a subcontractor.

And another example that we ran into, we had people from Metropolis that would go to Paducah -- chemists -- that would go collect samples, take samples, and then take them back to be analyzed. There again we had to develop policy

and came down that that is a covered function and those -- those folks were covered.

We ran into another problem with -- there were quite a few government -- employees of other government agencies, and what we had to adjudicate there was if they -- if they were doing the function that their agency was mandated, because of that mandate then they are not covered. An example there would be a Post Office. You know, DOE did not pay the Postal Service to have a Post Office at the Nevada Test Site, so they would not be covered. On the other hand, there were a lot of government agencies that were in fact a subcontractor of DOE, so if there was that relationship -- and to get into that, you know, we have to go back and look at Memorandum of Understandings and, you know, things like that and make a determination in each case.

And then, again, I discussed a little bit earlier about how we count the 250 days.

One of the guiding principles that we use, especially in these new SECs, is that, you know, we need to follow what the designation is. And that's why if you remember at the St.

Louis meeting I think Shelby made a point that it's -- it's very important for the Board, in your recommendations, to be as precise as you can in both the definition of the class, but then also as to the rationale for the class because then that starts playing, you know, very important role in what is done.

But Mallinckrodt, for example, the earlier -- the earlier years, because the designation -- and again, Mallinckrodt designation is on space. And from our point of view, your -- it's a lot better to have a designation, you know, defined as some space as opposed to some function. Functions become extremely difficult as -- as I'll get into in a minute. So at Mallinckrodt it was a matter of the 250 days and -- but then the issue on the -- the reason for the early years of Mallinckrodt was the lack of data. So in -- in that case, since it was a lack -- a total lack of data, there were no -- for the non-specified cancers, there was no option for any dose reconstruction, so what we had to do there -- and again, we would only look at the cases -- the non-specified cancer cases that only had time in the early years and

didn't go into the later years because, you know, then they would fall into -- into that category. And -- but those, and I think there were a total of three cases that ended up that were denied because they were non-specified cancers and there was no ability to do any dose reconstruction.

Then Mallinckrodt the later years, again -- it was identical, the 250 days at that location, and -- with the difference being that those, the non-specified cancers, those cases remained with -- with NIOSH for the partial dose reconstructions.

At Iowa, and we did have a -- again, that was designated by space, but we did have a problem there, and the problem -- we were able to resolve it. The problem was the evaluation and everything was done, and the reason -- the exposures that could not be dose reconstructed was Line 1 plus all those number of other areas that was in parentheses. Well, that didn't get into the designation, and that became pretty difficult to -- to deal with. Now the way we were able to resolve that was that in looking at everything there we were able to say that

those other areas -- the yard, the firing pits and all that -- really had become synonymous with Line 1, so therefore we were able to include those areas, you know, without, you know, having to go back and have another SE-- another SEC established for them.

Linde, again, is just the 250 days. And then the earlier -- the Y-12, the uranium enrichment activities and other radiological activities, we're still working and trying to resolve all the policy issues in that bulletin, and this one is very difficult because the designation is based on functions. So what we're struggling with and the way we're handling that is that -- we're looking at occupations kind of in three different groups. I mean we -- we have to, because it is a function and not a location. And you know, the first group are those occupations that we have identified that are just assumed to be, you know, in that class based on the occupation -- things like the Calutron operators, chemical operators, recyclers, Calutron cleaners, things -- you know, occupations like that. So -- so those are pretty easy.

Where it gets more -- more difficult is then there's a group of occupations where it's most likely they were not involved and not included in the class. And those would be things like clerical, accountants, cement finishers -- these are actual cases that we have that we're -- we're dealing with now -- cafeteria workers, couriers, machinists. And the instructions and the way we handle those, we would develop it with the claimant. We would go to the claimant, give them the opportunity to, you know, provide information that they were in fact involved in radiological -- uranium enrichment or other radiological activities. And the instructions to our CEs for that type of job is that in those we're going to need, you know, some kind of specific evidence that they were involved in the uranium enrichment or other radiological activities.

And then the middle group are occupations that, you know, could be -- could have been involved, but, you know, they -- they could be -- been working in other areas of -- of Y-12. Those are the things like the maintenance workers, you know, mechanics, instrument technicians

and, you know, security guards. And in those kind of cases what we do is the CEs would develop it, but then what they would be looking for would be, in the absence of evidence to the contrary and -- you know, that they would include them in the class. But you know, if the CATI or if, you know, our occupational history interview or, you know, some other document, our DAR reports that we get from DOE, if that put them somewhere outside of that area, then you know, we would not assume that and we -- they would have the opportunity to show that that was incorrect, but then that's how that would proceed.

And that's kind of just the basic overview and, you know, I know people may have some specific questions about some of the more recent ones and I'd be glad to try to answer any questions.

DR. ZIEMER: Thank you, Pete. That's very helpful. Let's see if there are indeed questions from the Board. Yes, Brad.

MR. CLAWSON: You used the term place or space, and I guess -- I guess the reason why I kind of look at this is -- is if you were to take a look, say at my position at the INEL, it'd show

me as a fuel handler and it'd show me at one facility, 666. But I'm also responsible for 603, 749, 10, the north end, 30 -- you know, and -- and I guess this is my question of -- some of the -- I guess that's maybe kind of why I've seen them push more towards, you know, like Y-12, not a certain position. I'm just wondering how do we -- I guess I'm thinking about the maintenance workers because I think of them in the same position as myself. I mean they go numerous places and it's a concern to me that they're covered.

MR. TURCIC: Yeah, they -- in those cases, like I'm saying, with -- with a maintenance worker, which -- if -- you would expect that maintenance workers could be sent, you know, anywhere and they could have been in the uranium enrichment activities. So in -- like I was -- in those kind of cases, we would make the assumption that they were included unless there was something in the file to the contrary. If there was something to the contrary, then we wouldn't ignore that.

MR. CLAWSON: I -- I guess what I'm -- I heard from the public meeting in Oak Ridge was one of

the individuals was discussing about being a machinist --

MR. TURCIC: Uh-huh.

MR. CLAWSON: -- and because he was a machinist they were figuring he was in this one place, but according to them, he -- he was all over. And if we do -- if we do do it this way, do they have an opportunity to be able to --

MR. TURCIC: Absolutely.

MR. CLAWSON: Absolutely to --

MR. TURCIC: See, that's -- that's where the development would come in. You know, we would send a development letter saying, you know, you're a machinist, you know, did you work in these areas -- areas and then maybe we would also go back to DOE, you know, look at other exposure records. You know, there's a lot of places that we would start looking for that.

MR. CLAWSON: That'd be fine if it was -- if you still had the individual still living, but you know, as we found out in many security issues and so forth, if you were to ask my wife what I did, she'd -- really wouldn't be able to even tell you to this day. She knows of certain areas that I do work, but -- you know,

and this was even magnified so much more in the early days.

MR. TURCIC: Yeah.

DR. ZIEMER: Jim Melius.

DR. MELIUS: Yeah. Thank you, Pete. I think it's helpful to get clarification on this issue. Couple of points. One is that I think that we need to obviously be careful when we're doing the class definition. I think it's going to develop out of the -- our evaluation of the monitoring data and the exposures at the site and basically determination of who cannot have their dose reconstructed. And then I think we need to take the step of trying to figure out how -- once we've got that -- figure out how do we define that group in a way that it becomes operational and can be verified based on -- on records and so forth. We'll -- because of the time periods involved and so forth we'll never be perfect and there may be people with odd work patterns or something that --

MR. TURCIC: Exactly.

DR. MELIUS: -- just may have to be dealt with on an individual basis. But to the extent that we can, we can do that. In some cases it may

very well be by defining buildings.

MR. TURCIC: Uh-huh.

DR. MELIUS: In some cases, when it's a larger part of a site or something, it may just be people on the site or monitored or should have been monitored kind -- kind of designation, and I think it's just important that we -- we think through it -- through that -- that step and so forth and it's a little hard -- difficult for us because we don't always see the -- the records and --

MR. TURCIC: Right.

DR. MELIUS: -- so forth. And plus even for -- I mean NIOSH and the deliberations here, we're often changing, you know, the -- the recommendations as we -- we go -- go through these and refining them in some way and so forth, but -- but I think if we can just keep in mind how to define it in a way that it'll be operational for you without having to put a large burden on the -- the claimants to have to then prove addition or provide additional information, to the extent that that's possible now.

MR. TURCIC: And we try to do that as we're

going through and develop our policy to our claims examiners. For example, it's not an SEC, but a very similar thing happened at Blockston (sic) Chemical.

DR. MELIUS: Uh-huh.

MR. TURCIC: When we looked at it, we were unable to put people into building 55.

DR. MELIUS: Uh-huh.

MR. TURCIC: And so then we had to make a policy determination, and where we came out on that policy determination was that since we -- we weren't able to do that, we then just said employment verification with Blockston equated to working in building 55.

DR. MELIUS: Uh-huh.

MR. TURCIC: The exact same thing was done at Bethlehem Steel.

DR. MELIUS: Yeah.

MR. TURCIC: I mean we probably -- we've probably paid more -- did more approvals than there could have been working on that one mill.

DR. MELIUS: Uh-huh.

MR. TURCIC: And because there was just no way that -- were we able to, you know, narrow it down to that one mill, so again we made a

policy determination that, rather than, you know, just leaving it open to affidavits for everybody, we're better off and it was better public policy --

DR. MELIUS: Uh-huh.

MR. TURCIC: -- to make the determination that employment verification at Bethlehem Steel equated to --

DR. MELIUS: Uh-huh.

MR. TURCIC: -- working at the -- the mill that was in question.

DR. MELIUS: I mean I would just hope that as we're evaluating these and reviewing these that we could get input from you and your staff as to --

MR. TURCIC: We'd be glad to, yeah.

DR. MELIUS: -- to make sure that we're -- you know, that what's getting sent over to you eventually is something that's -- that's useful 'cause it -- I don't think it helps again to --

MR. TURCIC: It doesn't.

DR. MELIUS: -- take six months or whatever to figure out how to then --

MR. TURCIC: Yeah, exactly.

DR. MELIUS: -- validate these claims.

DR. ZIEMER: Thanks. Mike Gibson.
MR. GIBSON: This information is helpful, Pete. But also I'd just like to remind you that some sites -- and in particular, like at Mound, there was a lot of buildings that had more than one process going on in the building, and -- for instance, even with a Q clearance, there may be one area of the la-- of a building that these technicians were putting together this widget and maintenance people would have to come in and maintain the equipment, and even with a Q clearance, without the need to know, we didn't what isotope was in that lab.
MR. TURCIC: Right.
MR. GIBSON: And so, you know, it's unknown to the employee what they may have been exposed to 'cause there may have been several different isotopes in one building.
MR. TURCIC: Yeah. And I think that's the point, though, that Dr. Melius was getting to, that the -- the first determination is what exposures cannot be dose reconstructed. And then it's almost a different function in a sense, a different analysis, to then look at what information is available to then

structure, you know, the definition so that that -- those splits can be made.

MR. GIBSON: Are there people on your staff that are Q cleared that have the right to go into DOE --

MR. TURCIC: Yeah.

MR. GIBSON: -- and get these classified discussions on certain isotopes?

MR. TURCIC: Yeah.

DR. ZIEMER: Thank you. Mark Griffon.

MR. GRIFFON: Pete, can you -- I -- I'm trying to figure out -- I'm looking at a letter here from Linde, I -- or actually it was from you to NIOSH regarding Linde.

MR. TURCIC: Okay.

MR. GRIFFON: And at the end you ask for the work -- the employees at the Linde plant in buildings 30, 31, 37, 38 who would be either listed cancers or non-listed cancers. It -- I -- I mean you're -- are you making the determination on who meets the class definition or -- this seems like a request back to NIOSH. I'm not clear on this.

DR. ZIEMER: DOL -- who's making the determination is the question as to whether --

MR. TURCIC: Oh, of who --
DR. ZIEMER: -- they were in the class --
MR. GRIFFON: Who were members of the class, right.
MR. TURCIC: Yeah, we do.
MR. GRIFFON: So you -- you determine --
MR. TURCIC: I mean if you're saying whether someone is eligible, we take the class definition. Okay? And then based on that definition, in adjudicating the claim we need to make a determination whether someone meets the profile that is established.
MR. GRIFFON: Okay, so maybe I misread -- I mean this letter seems to be asking --
MR. TURCIC: I -- I think there's a --
MR. GRIFFON: -- NIOSH to provide this list of who was --
MR. TURCIC: No, no, what we --
MR. GRIFFON: -- at certain buildings. It's not --
MR. TURCIC: -- do there, Mark.
MR. GRIFFON: -- it's not the case?
MR. TURCIC: What we do there is, because these cases are, you know -- we have records and NIOSH has records, and there could have been

changes in the meantime, additional cancers might have come in, things like that, the first thing that we always do is come up with -- NIOSH comes up with their list that -- and we would come up with our list and we kind of cross-match them so that we make sure -- you know, we're trying not to miss something that maybe was just coded wrong or maybe the situation on the claim had changed. So that's the first step that we do. And then, depending on whether they're going to be -- depending on what's going to happen to the non-specified cancers in a particular case, then they either -- what we try to do is to only have the cases that involve a specified cancer come back to us if there's going to be, you know, further dose reconstructions for the non-specified cancers. So that's -- that's what that back and forth is.

MR. GRIFFON: Okay.

DR. ZIEMER: Further comments or questions?

(No responses)

Okay. Thank you very much, Pete, for that discussion.

Y-12 SEC

We're going to move here momentarily into the discussion of the Y-12 SEC. I -- for Mr. Presley's benefit, I think he probably recluses (sic) himself on this. Is that correct? But is he -- he is allowed to listen --

DR. WADE: Right, he can stay on the --

DR. ZIEMER: -- but not enter into the discussion.

DR. WADE: Correct.

DR. ZIEMER: And I will be reclusing (sic) myself.

DR. WADE: Right, this -- let me identify the conflicts on Y-12, and there are three -- Mr. Presley, Drs. DeHart and Ziemer. Under the procedures of the Board, they would leave the table. They could participate as members of the public, but not as members of the Board in this particular segment of the Board's deliberations. So I will ask them to take prominent seats in the audience.

Based upon consultation with counsel, I will act as Chair in an administrative capacity. I will not be voting, but will try and take what I've learned from -- from Dr. Ziemer and apply it.

Just a note that, given the situation that has taken place in terms of three members needing to recuse themself (sic), we now have seven Board members involved in the discussion with the ability to vote. The seventh is Dr. Lockey, who is on the call -- Dr. Lockey, are you still with us?

DR. LOCKEY: Yes, I am.

DR. WADE: Okay. A quorum of the Board is six, so that we have more than a quorum of the Board present and we can continue with our business. I would also point out that, based upon discussion with counsel, Dr. Ziemer will be allowed to undertake certain administrative tasks associated with this activity, such as preparing a letter to the Secretary, should there be -- should he be so directed by the Board who's present. We don't want to let him get away from the work, and I don't think it's appropriate that I would prepare a letter or sign a letter to the Secretary. So Paul, you're not off the hook completely. We will still work you, but you just can't join us at this prestigious table.

So with that, we'll move into the agenda and if

you'll look at the agenda for this afternoon we will start with a presentation by SC&A giving their review of the Y-12 SEC evaluation report. That was really scheduled for yesterday afternoon but we ran out of time, and we'll start the deliberations with a presentation I believe by Arjun, and then move into a presentation from NIOSH on the evaluation report. We'll hear from petitioners if they're present. And then the workgroup, ably chaired by Mark Griffon, will make a report and then there'll be time for Board discussion and decision.

So Arjun, if you would start the process for us.

PRESENTATION BY SC&A

DR. MAKHIJANI: Thank you, Dr. -- is this on? Am I live?

DR. WADE: I'll leave that judgment to others, Arjun. It's a matter of whether we can hear you or not.

(Pause)

DR. MAKHIJANI: Thank you, Dr. Wade. As you know, this report was prepared rather rapidly, in two versions, one on April 19th, after which

we had a call on April 20th. Of course we've been reviewing some of the issues for quite some time through the site profile review process, but there were many new things, including the class definition, in the evaluation report so a lot of the work had to be done starting with the receipt of the evaluation report. And so the point of these remarks is we know -- we know NIOSH has only received our latest report on April 24th and everybody had very short time to react, so we are open to discussion on many of these issues and we tried to research the issues and -- and bring them to the table as best we could in the time available.

I just want to correct two typos from yesterday. I will send around a new Ames presentation. There were two elements in one of the tables that were in the wrong column, so I just want to put that on the record.

Okay. Our -- our biggest finding I guess is that we -- we agree with the NIOSH determination that the data are not adequate to reconstruct doses for workers who were monitored or should have been monitored for

exposure to thorium in the period covered by the SEC petition, '48 to '57. So that was the NIOSH finding, and our basic finding also. We didn't find a lot of data there and -- and so we agree with NIOSH on that.

We looked at the buildings that NIOSH had and areas that NIOSH had defined on -- on... On April 20th NIOSH did say that they had researched these very carefully. We had not gone through the underlying documentation at that time. NIOSH did supply us, and the e-mail is reproduced in the April 24th report, with a set of references. We did look at these references, admittedly not as thoroughly as we would like. There were just a couple of days really to prepare the response to the April 20 conference call. So these -- these comments on the area and the buildings are offered in the -- in that spirit, that -- we're not saying that there are new areas of building that should be added to what NIOSH has done. We've just tried to identify areas that we think need some further investigation than what was indicated in the evaluation report.

And the scale of thorium discards at Oak Ridge

-- and I'm not saying now Y-12 specifically, but at Oak Ridge -- in the SEC petition period was -- was quite large. As I added it up, the total discards through 1957 inclusive were almost 800 kilogram, most of them were to the burial grounds and/or the S-3 pond, it's not differentiated. There were also quite a lot of discards to the sewers and -- the sanitary sewers. 800 kilograms of discard, if you assume a typical few percent discards at most, indicates a very much larger scale of processing at Oak Ridge than -- that at least I -- I -- I thought we were talking about. It's not clear how much of this was at X-10 or at Y-12. Most of the discards were at the burial ground associated with X-10, which is in a footnote in one of the reports. But it doesn't identify where the thorium came from. It seems reasonably clear that there were classified activities going on in the period and -- and it -- we think that a classified investigation may be necessary.

There was a sort of a mismatch, and we're not sure about the period of the mismatch, but there are two buildings defined in the -- in

the site profile as being described as associated with thorium-230, which is a different isotope. We've been talking about thorium-232 so far. Those are 9215 and 9720-5. One of them is a storage area. And we don't know whether that applies to the SEC period, it's not clear. I have not gone through all the background documentation and we -- since they are not in the list that NIOSH has included, maybe the dates on those could be investigated to see whether they belong or not. Okay. Much of our discussion on the -- during the workgroup meeting has revolved around the verification of what has come to be called the CER database and what NIOSH has identified as the database that DOE regards as the database of record. And they have an internal/external component. NIOSH did quite a bit of data validation and verification of that database for internal data. There was a maximum dose match-up for 1950. There were health physics reports -- quarterly reports matching for 1952, and there were also validation activities for 1953. And while there were years that were not matched up, we didn't find any particular

discrepancy or problem that we thought would invalidate the use of the data for dose reconstruction. It was limited, but there were no problems that came up in the verification. The picture's a little bit different for external dose. The external dose record for 1951 in the CER database contains essentially all zeroes for '50 and '51. We matched up -- there's another database called the delta view database which consists of raw data, and that has some records from '51, perhaps they are mixed up X-10 and Y-12 records. We didn't investigate that, but there are discrepancies because all of the -- all of the entries for '50 and '51 are zeroes. This -- this doesn't appear to be correct, especially against the assertion that the people who were monitored had the highest exposure potential, and so NIOSH sent us a communication saying that -- that they agreed that this data could not be used for dose reconstruction. Then during the conference call of April 20th, it was stated that the person who said that -- in the -- in the communication it was stated that the discrepancies or the zeroes may be due to a

software problem. Then during the conference call of April 20th, that statement seemed to be withdrawn, so we're not quite clear as to what the status of that communication is and what is the source of these discrepancies. It doesn't appear likely that they're all correct zeroes. They're not going to be used for dose reconstruction, we understand, but -- but still the problem with entries that appear to be incorrect in the database will -- raises questions about the integrity of the database, quite apart from whether they're going to use for dose reconstruction or not.

There are internal inconsistencies in the CER database in a part of the CER database through 1955. The five columns showing external dose -- there's -- there's an illustration in the report -- I don't remember the page, but there's a table in the report that shows four of those five columns -- beta, gamma, shallow millirem and penetrating millirem, and there's also a column for neutron dose. And the penetrating millirem is supposed to be the sum of the gamma and the neutron, but through 1955 every non-zero entry in the penetrating -- in -

- in the gamma or neutron does not add up to the penetrating millirem. Penetrating millirem is always less than the sum of the other two when they are non-zero. And it -- while that column is stated to be not scheduled for use in dose reconstruction, again, we have the same problem, as the other database of record that has a large number of entries that appear to be incorrect.

Then there's a problem of systematically -- systematic discrepancy and one doesn't know then whether there might be other errors in other parts of the database that hasn't been identified yet.

There was a NIOSH validation for 1953 that came up okay, but because of the problems in the other areas we felt that there should be verification for '52, '54 and '55 to some extent. There were no internal inconsistencies that we discovered for '56 and '57, but there's no external database matching with other records like raw data records or health physics reports or anything like that for -- for those years or for any of the years from which the coworker database has been filled. So there

are a considerable number of issues that we've raised with the external part of the CER database.

The specific issues associated with a group of workers called the salvage and recycling workers -- there's a typo on -- on page 18 of your report. The first building is missing the last digit. It says 920, it should say 9206. It's correct on the slide there. These three buildings are identified in the site profile as having salvage and recycling operations that ended in '51. And we've discussed the issue of how best to characterize and construct coworker doses for -- for these workers. Internal dose, the Technical Information Bulletin for these identify internal data available for these years is very -- being very limited and rather on the low side. The -- NIOSH proposes to use -- now this is from -- I forgot to give you one caveat is we don't have of course the transcript from April 20th and John Mauro took notes. And to the extent that those notes are not verified against a transcript, and we were obliged to use what notes we had in order to represent the conversation on -- on April 20th

in order to be able to respond -- we understood from John Mauro's notes that NIOSH had proposed to use the 95 percentile of the early '50s data and that this may be a reasonable approach. But --

DR. NETON: That's incorrect, Arjun.

DR. MAKHIJANI: That's incorrect. I -- we had an internal debate about that. I didn't remember it that way. It was in John's notes. So I'm glad that we have a real-time correction. So I -- I'll just say for the record then that that piece of it should be disregarded. The -- the --

MS. MUNN: I don't know which piece should be disregarded.

DR. MAKHIJANI: Some -- some approach needs to be found that applies to this particular set of workers to show that the coworker model that is being used from the early '50s will be bounding for the types of jobs that they were doing for internal dose.

I think -- I think that we have some of the same issues for external dose. In addition, while there were no problems identified with the internal dose database of the type I

discussed for external dose, in the case for ext-- of external dose we have the additional problem of database of record suffering from systematic discrepancies. And so how these doses are to be reconstructed, especially for salvage and recycling workers for this period, at least seems like an open question to us. There have been a lot of -- monitoring was not universal at Y-12 until 1961 when everybody was badged. The number of badged workers increased fairly steadily through the 1950s, and we do agree with the overall idea that the supervisors -- the idea -- the policy was to try to badge the workers with the highest exposed -- potential. We have discovered that this was sometimes successful and sometimes not. If you take the 1961 to 1965 period as indicating who really had the highest exposure potential there were two broad bins that were fairly successful: some buildings and workers who had low exposure potential and some who had high. But among the second group there was some -- some difficulty in actually successfully identifying all of those workers, so we had some questions about the coworker

model that NIOSH had constructed on the assumption that all of the badged workers were workers with the highest exposure potential. I'm trying to quote a paper accurately. I believe that that's an accurate representation of it.

Also as I noted earlier, there's been no data validation for the period of this coworker model, and in view of the problems in the external dose CER database, we think that at least some is -- should -- should be done.

These are the slides we talked about. Dr. Glarinski*, who's a statistician on our team, did a correlation of the mean doses in -- among the -- among the buildings with relatively high exposure potential, the mean from the '55 -- '56 to '60 compared to the mean dose from '61 to '65. As you can see from the scatter plot, the correlation is rather low.

We also did -- sorry. We also did a correlation between the percentage of workers who were monitored in the various departments versus the mean dose in the same department in the '61 to '65 period when everybody was monitored, and presumably you have a better

idea of which departments had the highest exposure potential from the latter period. And again the correlation, as you can see from the scatter plot was -- there was some correlation, but it's pretty weak.

On the other hand, there seems to be some success within the period. If you say which were the departments in which the highest number of workers were monitored compared to the department that had the highest average dose, you see that within the period there was some success. This R squared from this correlation was .49, if I remember correctly, so within the '56 to '60 period there was some success, but then again it's clear that there were departments in -- in -- which were not so successful in identifying those workers with highest exposure potential.

All right, we discussed this quite a bit yesterday about a quantitative task for determining, you know, how much confidence you have in data validation so I'll skip over it. The -- in the interest of time.

In regard to uranium workers, NIOSH has stated that it can reconstruct doses for uranium

workers, but we didn't find a clear definition of uranium worker. From the description in one of the buildings where thorium was processed, it was clear that some areas in that building were thorium areas that had mixtures of uranium and thorium dust, and other areas were regarded as uranium dust areas only. The question arose as to what happens if trace quantities of thorium dust were present for workers who were defined as uranium workers, and this problem arises for uranium workers -- not so much, for instance, if you have plutonium and thorium mixed up -- because the dose conversion factors for certain organs for thorium are orders of magnitude bigger than for uranium. We looked at the mass -- so when I brought this up on the conference call on April 20th, Mel Chew said that you require a much, much bigger mass of thorium-232 because it has a much larger half-life compared to uranium. I did check into this. I did -- I did state for the record that I didn't think that was entirely right. I did -- I did check into this. For natural uranium versus thorium-232 in equilibrium without their non-apparent decay products -- that is non-

thorium decay products and non-uranium decay products -- the ratio's about three to one, not 100 to one as Mel Chew stated. And if you do depleted uranium to thorium-232, which is always in equilibrium pretty much with thorium-228, then you get a ratio of about 1.8 to one. So the mass -- the mass question is not a very relevant question. Radium-224 builds up very rapidly in thorium, also, within weeks. And so I don't think that that particular issue is important. And trace thorium.

In the first report you got we hadn't covered recycled uranium. We do have a section on recycled uranium. In the main we think it is not a Special Exposure Cohort issue.

We have some discussion about what ratios might be appropriate. We have a review -- a broader, sort of generic review of this issue in preparation. Dr. Thorne is -- on our team is doing that, but we used some of that information and -- and we did prepare a section for this particular report.

The items that we do think -- where we have some concerns and reservations that need to be worked on some more just to demonstrate how the

question of sludges and waste streams are going to be handled. But mainly we don't think that this is -- apart from that, we don't think this is an SEC issue. It's covered in -- in the site profile and can be resolved mostly in that context.

As you know, there were lots of radionuclides that were handled at Y-12 in the Calutron/Cyclotron area. Polonium-208 was one of them, a relatively short half-life material. And NIOSH has stated that it has sufficient data for dose reconstruction -- incident data are present. They com-- NIOSH has compiled data from this -- from the delta view database into a spreadsheet. I did look at that. The -- that database for the SEC period only contains a few internal bioass-- few -- few entries for bioassay data, almost all of which seem to be related to one incident in 1953, and all of which are from 1953.

There was a sample DR, and again another caveat. There are lots of sample dose reconstructions that were done. We've only skimmed them. We -- we've not really given them the due credit of actually studying every

file in -- in them and -- and so we -- so some of these comments should be taken in that spirit. We didn't have the chance to look at any 1952 data. They're not in that delta view database. They might be in an incident report that we haven't had a chance to look at or in individual data that we don't have at the present time. So there has been an assertion by NIOSH. We -- we think that these data exist there may not be an issue but -- but we haven't had a chance to address and -- and resolve these issues so -- so we don't know for -- for -- from that point of view, for us, this remains an open issue for the SEC and until that -- that database is explained or published and made available.

Plutonium -- by contrast to polonium, there's quite a lot of bioassay data for '52 to '56. We haven't done any verification, but just on -- on the basis of what's available, it seems that individual and coworker doses should not be a problem for those years. We didn't see any data for 1957 for plutonium, bioassay data. The coworker model, so far as I know, hasn't been developed as yet -- or at least I didn't

see it. The -- there was an allusion to plutonium in 1951 or earlier, and I don't -- I don't know if that actually is the case or how that would be handled, and some data are classified. So plutonium for the years for which data are available is largely not an issue, but -- but there are some sort of questions that we couldn't address with information not available.

The rest of the radionuclides we've given the term "exotic radionuclides." There's a whole variety of them. Appendix 2 of the evaluation report contains a spreadsheet that details production of these radionuclides. We did find that that spreadsheet is not -- doesn't contain the full account of production and so at least some of these radionuclides we were able to verify that -- various sources -- as is described in the report. Again, here NIOSH has stated two workers were involved in that incident and external monitoring data would be available to reconstruct dose, and -- and we think if that is the case that there may not be an issue then, but we haven't been able to examine them.

There was a gallium dose reconstruction example given, but it was from an accident in 1968 and doesn't fall in the SEC period. We don't know what -- we can't determine what the relevance is to the exotic radionuclides for the SEC period, so we consider this still to be an open issue.

Last slide is just to give you an idea -- it just -- I coordinated this and brought -- there were a lot of people involved in its production. Sorry, Bob Anigstein has a Ph.D. I forgot to put that in after his name. Other than myself, Kathy DeMers, Hans Behling, Mike Thorne, Harry Chemylinski and Bob Anigstein helped prepare the report and Dr. Mauro and Ron Buchanan reviewed it.

I'd be happy to take your questions.

DR. WADE: Thank you, Arjun. We have an opportunity for questions from Board members for Arjun. Any questions? Dr. Lockey, any questions?

DR. LOCKEY: No, not at this time.

DR. WADE: Okay. Arjun, thank you. Stay close.

DR. MAKHIJANI: I'm easily off the hook here.

DR. WADE: Don't go far away, though.

MS. MUNN: Probably not. Don't be over-confident.

PRESENTATION BY NIOSH, DR. JAMES NETON, NIOSH

DR. WADE: And now we'll move into the formal part of the agenda that was set for Y-12 SEC, and that is the presentation of the petition evaluation report by NIOSH, and that will be done by Dr. James Neton.

DR. NETON: Thank you, Dr. Wade. I'm not quite sure where to begin here after that rousing presentation by Arjun on our work. I'm glad that he did represent this as somewhat hastily prepared and did come about at the last minute. We've had a couple of looks at their report and my formal presentation here is not set up to respond to this because as of -- I received the last draft half an hour before I was headed for the airport on Monday, so one can imagine that we've not had time to -- to review all of this in its entirety. However, I would -- I would just like to state for the record that we do find that there are -- are several misunderstandings and misinterpretations in the report as portrayed, and we certainly would

welcome the opportunity to discuss them with -- with the SC&A folks -- in several major areas, I might add. I'm not going to go into them at this point, but I'd just like to state that for the record.

I'm here to address our normal presentation for the evaluation of a petition, which in this case is SEC petition number 28, and that is for the Y-12 Plant.

The petition was submitted under Part 83.13 of our SEC regulations. It was submitted to NIOSH on behalf of a class of employees with the initial definition of all steamfitters, pipe fitters and plumbers who worked at Y-12 from October of 1944 through December of 1957.

NIOSH -- in doing these evaluations we like to take a bigger bite of the apple if we can and take the opportunity to look on a broader scale, as long as we're going into the weeds on a lot of these issues, so we expand our evaluation to include a class bigger than that, which would be all workers who worked at the facility between 1948 and '57. The discrepancy in the first four years is because of course the Y-12 SEC has already been granted for the

years up through the end of 1947 under previous deliberations.

A little bit about the Y-12 operations in this SEC evaluation period. For the most part, Y-12 was heavily involved in machining, production and forming of uranium, and that is by far and away the largest potential source of exposures, but there were other ancillary activities that occurred on the site as alluded to by Arjun's presentation. There was an 86-inch Cyclotron that was there that they did produce these exotic -- so-called exotic radionuclides. The Calutrons were there, which we have discussed in previous SEC petition evaluations. And even though the Calutrons were formally shut down for production of uranium at the end of the previous SEC period, their use in fact continued for various other miscellaneous purposes up through the end of this evaluation period, and I'll talk a little bit about that later.

In addition to that -- the Cyclotron/Calutron activities -- there were thorium activities ongoing at the site, and we have very good evidence that thorium was present at the site

from 19-- all the way from 1948 through 1957 in increasing quantities throughout the exposure period. However, just to comment a little bit on Arjun's emphasis on the quantity, the bulk of the quantities of the thorium that were disposed of in the waste pits did not happen until I think it was 19-- 1957 period. And we have very good evidence of where -- we believe -- the health physics reports are aware those processes were ongoing and in fact those are included -- those buildings are included in our evaluation.

Another side comment -- I can't resist to comment slightly -- is the X-10 facility where the burial grounds were, to my knowledge, are not on the Y-12 facility property so therefore could not formally be considered as part of this SEC petition.

In addition to thorium activities there were critical experiments facilities. There was a remote area of Y-12 that was set up to do criticality experiments. You can imagine it should be in a remote area that was somewhat isolated. They did critical and subcritical experimentations.

Okay, a little bit of the nuts and bolts of how this process goes. The Board should be fairly familiar with this so I've summarized what used to be three or four slides down into one.
We've met -- the petition met the criteria outlined in our regulation on April 29th. The petitioner was notified and a notice was published in the *Federal Register* on June 6th, and the report -- evaluation report was prepared and sent to petitioners and the Board on April 7th and posted on our web site. And there was a *Federal Register* notice published that this petition evaluation report would be discussed at this meeting on April 19th.
Again the slide that should be all familiar to you now, the two-part process. Can we estimate doses of radiation with sufficient accuracy; and if we cannot, was there health endangerment involving this class.
Okay. There were a number of ongoing activities to evaluate this petition, and several are new. We -- this is the first time we have worked with -- very closely with the Advisory Board working group and SC&A to review originally the site profile, but in the later

months, towards the February time frame, we've been very heavily involved in reviewing the site profile in the context of how it played out for SEC petition.

As usual, though, we are -- we went about our business and identified and reviewed data resources that we could use to determine availability of the information and feasibility of dose reconstruction. And in that way we looked at personnel monitoring, area monitoring, testing processes, radiation sources -- the usual types of information that we would look for to see that we could establish some type of a plausible upper bound on doses for this -- received by this class. Again, we're not trying to -- to reconstruct dose reconstruction down to the nth degree; we're trying to determine do we have sufficient information to plausibly bound exposures for members of this class.

We reviewed the data for credibility and reliability. We have been doing that to some extent, but now it is more formally documented because of the new Board operating procedures, and we certainly are attempting to conform to

that in every way possible. And again we prepared example dose reconstructions for some specific scenarios that were somewhat mutually agreed upon between all of us working on this -- that is the Advisory Board working group, SC&A and NIOSH. I'd like to discuss a little bit about each of those in turn here.

The site profile and SEC review discussions I might say were tremendously informative and a very interesting scientific exchange. I mean we -- they become somewhat frustrating and wearying at times because we had a lot of -- a lot of discussions. The working group was established in October of 2005. By my count of our -- our web site, we had five working group meetings, but I think that the SC&A report indicates there were more than that. I certainly would buy that. It was a -- there were many, many hours and there will be hundreds of pages of transcripts prepared as a result of our deliberations, and I think the science is much better -- better off for it. I think it was a good process.

As I mentioned, the focus shifted, though, in February from the profile review to very

specifically fine-tuned, as Mark talked about, matrix that was relevant only to SEC issues and I think to a large extent we -- we pared down that matrix to -- down to a few items, at which point the matrix was labeled NIOSH is going to provide their final analysis in their evaluation report, which I believe we did. Again, the SC&A draft review came out April 19th and we received the final -- I don't know if it's the final yet, but we received another version as of Monday.

The resources available -- this was touched on somewhat in Arjun's presentation, but we do always look at the NIOSH case file database, so-called the NOCTS system, the NIOSH/OCAS Claims Tracking System. There we have a pretty rich amount of information from the claimants' submittals, the Computer Assisted Telephone Interview, anything that's in there that can help inform us as to what occurred at the site and what type of potential exposures were there. We also delved very deeply into the NIOSH and ORAU research databases. I think the Board is very well aware of our ongoing site research activities and we relied heavily on

the information in them for reconstructing or for -- looking for information that could help us reconstruct doses.

We also developed a large number of technical documents from those primary resources, and I'll talk a little bit about those in turn, as well. This is probably the most well-documented site that NIOSH has written about, to the point where I -- I think we're approaching 1,000 pages of writing. That could be a slight exaggeration, but certainly well into the upper hundreds of pages of site profiles, technical reports and such. And all of us on the working group and NIOSH and SC&A have -- have read almost all of it more than once.

The ORAU Center for Epidemiological Research database is a valuable resource for us. This is a database that ORAU has available to them. It is an electronic copy of the electronic database at Y-12. In other words, it's not a database that was -- was created for purposes of epidemiologic study. It was the database that the DOE maintained and this is an -- to the best of our knowledge, a duplicate copy of

that database.
We also did interviews with site personnel where it was relevant to certain issues that we needed to have answered. And of course we always look at the documentation or affidavits provided by the petitioners.
A little bit about what's in NOCTS, we have 1,303 cases that meet the class definition in the system right now, or potentially meet that definition. Of those, 309 have internal monitoring records, 106 have external monitoring records. We don't have a full -- a full complement of external and internal monitoring records for Y-12; there are some gaps, but we have developed coworker models that we could talk about later to fill in those gaps.
As far as the research database resources available, there are almost 500 Y-12-specific documents out there.
DR. MELIUS: Can I ask you a quick question? I'm a little confused by the numbers there. Which class definition are you referring to?
DR. NETON: This is the proposed class definition.

DR. MELIUS: So those would be --
DR. NETON: They're all -- all employees between the two dates, 1948 to '57.
DR. MELIUS: Oh, okay, so the petition, not your proposed --
DR. NETON: That's correct.
DR. MELIUS: Okay. Okay, I didn't --
DR. NETON: Well, this -- not -- not the -- not the petition's classification but the proposed class definition by NIOSH, which is all workers between 1948 and 1957.
DR. WADE: clear, Jim? You make no mention of thorium in your comment.
DR. NETON: Pardon?
DR. WADE: You made no mention of thorium in your definition.
DR. NETON: I'm sorry, I'll be getting there, but it will --
MR. GRIFFON: But this doesn't -- this doesn't --
DR. NETON: No, this is the evaluation of the peti-- the class under evaluation is all workers --
DR. MELIUS: Yeah, exactly. I think that's --
DR. NETON: Yeah, we -- we don't know a priori

who would have worked with thorium, and that may be something we want to talk about a little later. We know which buildings the thorium --

DR. MELIUS: Yeah.

DR. NETON: This would be all workers. So the database had almost 500 Y-12-specific documents and in that database was a fairly rich collection of health physics reports that were by quarter. Or actually they were sometimes by month, but eventually they became semi-annual, and these reports persisted -- persist throughout the SEC period, although I will have to admit that several reports in the interim periods, in the middle 1950s, we do not have on the database. We have reviewed them and looked through them, but they have yet to -- they're not classified necessarily, but they have not gone under classification review. We have no expectation that most of we will need is not classified, but I can't speak to that. But we have had people with clearances go in there and look through these -- these documents. There's also air sample data in there, bioassay samples, description -- process description, et cetera.

I mentioned about the volume of original writing that NIOSH, with ORAU's assistance, has put together, and these just list the Technical Basis Documents, the six chapters that make up the site profile for Y-12 and the dates that they were created. It's -- it represents several hundred pages of written documentation. And then in addition to that, as I mentioned, this -- this site probably has more written on it about the history of the monitoring programs and how we would interpret those pieces of information than any of the other sites. There are Technical Information Bulletins related to how we would adjust individual doses for -- from the external perspective. I think the first three up there are all related to this. There's a lot of effort put into backwards extrapolation into the pre-1956 period when we had a paucity of monitoring data. These are very well-defined documents and I -- I do believe this is one area, a big area, where there is a misunderstanding between us and SC&A as to exactly what we've done and what the relevance of some of their statistical analysis might be. I firmly believe that they have --

we -- we should talk more about the interpretations on those data.

There's also documentation on what was available for the electronic personnel data and the historical validation of the film badge dosimetry program. A lot of work went into looking at the quality of the measurements and what usefulness they might be. For example, we are not proposing to use any data before 1956 in any dose reconstructions from the external dosimetry perspective. Contrary to the fact that there may be some issues, we have developed a backward extrapolation model that relies on a sampling of 147 workers who were heavily monitored in those periods and -- and a backwards linear extrapolation procedure that is part of these Bayesian analyses.

And there's several more here. Again, these are related to the external radiation program. There are a few out there that are draft I haven't included here related to neutron monitoring and other.

Let's talk a little bit about the Center for Epidemiologic Research database. This is a database that has literally hundreds of

thousands of records. Of course I can only speak, for this presentation, for the records in the SEC period -- or I should speak to those, starting in 1948, and I've included a little bit of overlap into the non-SEC period because of the fact we did rely on some of those results for our coworker models going back into the 19-- you know, before 1956. As with most sites, you see an increasing number of records as you become closer in time to the current period. The number of individuals monitored was fairly low in 1950 through -- well, the first four years there, '51, 2, 3, 4, and you see a lot more records starting to come into play. We have a fairly well-defined coworker model for internal dose based on those monitoring records, and in fact the '48 and '49 where we have no records, we actually have used the data from the 1952 period where we had -- I can't read it from here very well, but -- 13,000 records and assumed that all the exposures in those people of 1952 were related to their work practices in 1948 and '49, an extremely generous assumption on our part.

The only question that remained, and our discussion with SC&A on this, was did in fact Y-12 fire everybody in 1949 and we couldn't use those 1952 records. In fact, were the 1952 workers relevant to the exposures that occurred in 1948 and '49, and I thought our conclusion was on the phone that it was an unlikely scenario, but maybe we should go back and document that a little bit. That was my understanding of our discussion, somewhat different than what was portrayed on SC&A's. External monitoring data, again, very few numbers of people monitored through 1956, increasing numbers as you come later. And again, we're not using any of those values prior to 1956 for dose reconstruction. Based on our analyses of -- of those datasets, they do not really fit any distribution well at all, which is why we went to the backwards extrapolation approach from the data after 1956.

Just a little bit about the delta view monitoring set. This is a database of in excess of 400,000 pages of information that Y-12 has maintained. It's not a database in the

sense that it's -- it's number values like in an Excel spreadsheet or something. It is actually image pages. So there are in excess of 400,000 image pages that contain a lot of information, including incident investigation reports, bioassay records, that sort of thing. In the time we had available while we were working with SC&A on this issue, we managed to pull out some records relevant to plutonium exposures that you see on the screen there in 1952 through 1956. We propose to use those as part of our coworker model. And in fact, we provided a sample dose reconstruction using a coworker approach to SC&A. I'm not sure they've read it, but we have provided a model. A proposed model is out there.

Not much thorium monitoring, as you can see in that bottom line, until '58 where believe that the major production activities were initiated. As indicated, we did some data reliability checks on the electronic database. We did have an indication from -- we heard -- we heard reports from interviewees and such and others that had worked at the site that the database -- the electronic database was considered to be

the dose of record for the workers, and we did manage to go get a secondary reference that -- that -- it did indicate that.

There was -- I should point out, there was no assertion as to reliability of the data made in the petition. This was not one of the arguments made in the petition. But of course we do recognize that it's prudent for us to go back and look at the data, take a -- take a check and see if it does pass the reasonableness test. So where possible we did compare results to the separate data sources, and this is a very difficult issue. I mean for 50-year-old records, to go back and -- and to find original records is extremely difficult. I was very happy that we found the record we could, particularly in the internal area. So we went back and looked at the health physics reports, the delta view database, and we did find some electronic -- you know, the old IBM 80-column keypunch cards that had data written on top that we could read and -- and helped also to validate our -- the reliability of the database.

In the bioassay area we did look at individual

results in 1953 health physics reports which pointed to workers. We heard about this yesterday. They compared very well. We did some percentile comparisons with a 1952 health physics report where they provided indications of the 70th percent-- 75th percentile, 90th, 95th percentile, those type of numbers, and we went into the database in '52 for that period and in fact the percentiles compared favorably with what we had in the CER database.

We looked at samples that exceeded the maximum permissible limit and -- it's not 19,552, but 1952 -- and those compare somewhat favorably. There was a maximum value reported in a 1950 health physics report. We went back to CER database and the maximum value in the database for that year was indeed a match.

I will point out, though, that there was a discrepancy in the total number of urinalyses reported in the HP reports versus electronic database. We did some investigation. We interviewed people at the site who would have been -- we thought were knowledgeable in helping to elucidate why this would be the case. It turns out that the HP reports tended

to include a lot of additional samples that were not necessarily worker samples. There were duplicates made, there were quality control runs. There's some indication that when they split a sample and ran it for -- the fluorometric technique for mass versus the alpha isotopic analysis, that those would be double-reported. So there were a lot of indications to explain or at least to help -- well, to help explain why there would be more numbers -- total values of numbers in the HP reports versus the database.

The external dosimetry comparison, as -- as Arjun mentioned, was somewhat more difficult. We could not find original records to any large extent. And in fact, the 1953 delta view report was there area where we could -- only area where we could do a direct comparison, and even that was a -- not completely direct because these were summary data versus individual. But in looking through those 1953 records we believe, and I think SC&A agreed, that the records would compare favorably, given the caveats we -- we had to put on them.

There were these discrepancies noted in 1950

and 1951. They certainly deserve to be investigated. However, I don't think that the data are invalid, as indicated in SC&A's report that we received. I think there are some pathways we need to go down. For example, in looking at the example in the SC&A report it appears to us that it -- we confirmed actually yesterday that -- that those are act-- almost all those except one -- all of those except one are X-10 workers. Delta view database has some carry-over from X-10 to Y-12, so we need to be careful in interpreting the data that's contained in the delta view.

Cyclotron activities, polonium-208 production did start in 1951, ended August of '53, so it was of fairly short duration in the -- process in the history of the Y-12 site. And there were chronic exposures. There were airborne activities produced as a result of irradiation of a bare target. As we'll discuss later, all the -- almost all the other activities used clad targets, but to the maximum output of the polonium from the proton interaction, they had to rely on bare target materials. But we do have air sampling results in some of the health

physics reports that document the airborne alpha concentrations in various rooms associated with the Cyclotron, which we believe we can use to help reconstruct those doses. The other radioisotope production followed. These are typically short half-life research-type activity nuclides -- gallium-67, promethium-147, those type of isotopes. The targets were -- were clad, so when they were irradiated in the Cyclotron they were essentially in a sealed cladding, and when they were pulled out of the Cyclotron they were actually processed at the X-10 facility intact. Now that's not to say there weren't exposures. We know that there were incidents, and we did provide one incident that we could find in the time frame available -- outside the SEC period, but we have numerous indications that when incidents occurred that were as a result of off-normal circumstances at the Cyclotrons, they were evaluated and bioassay samples were taken. In fact, these internal exposures really only, we believe, occurred when the target would rupture. There are a number of site documents we believe we can use to capture

what happened in these incidents -- I think I've got this on the next slide.

And these would include these five types of documents: NIOSH case files -- in fact, I think the gallium-67 accident, the bioassay records were in the case file itself. I mean we were looking through the files and -- and there it was. And those records come directly out of this delta view database, so we're very comfortable with the fact that when we apply to DOE or ask DOE to provide monitoring records, they search the delta view database -- we know this -- and provide us any -- they can do searchable fields and find names of people involved with incidents and provide them to us. We've gone back and looked at the delta view database that they searched under code word "incidents". Right now we have indications there are about 70 incident reports out there in the SEC period in the delta view database that we're trying to obtain. We've had folks go over there with clearances and look through these, but again, these -- these need to be reviewed for classified material before they're released.

In addition to delta view reports we have internal memos, as well as production-related documents.

Speak a little bit about the thorium activities. There were quantities of thorium present throughout the evaluation period, as I had indicated, and these were in three distinct types of operations. There were -- there were memos in the files that indicated that enriched uranium was cleaned up out of the Calutron using thorium as a co-precipitating agent. That's kind of an interesting process to use a radioactive material to obtain radioactive material, but that's in fact what the memo states, so there were -- there were thorium exposures from that avenue of -- of operations. There were isotopic separations, and this is where the thorium-230 exposures come in. Thorium-230 was -- was selectively isolated --

(Interruption due to inadvertent activation of voice mail on the telephone connection. Throughout the remainder of Dr. Neton's presentation the operator occasionally spoke to a telephonic participant, often concurrent with Dr. Neton's statements. Where indicated, it

rendered transcription of Dr. Neton's comments impossible.)

Isotopic separations occurred in the Calutron for a very specified period of time. We know when they occurred. We know where they occurred, so we believe we can -- we -- we know which buildings this oper-- activity occurred. And then there was what we call the pilot scale research and development operations where they were gearing up to do mass quantities of thorium production in the late 1950s starting, we believe, no earlier than 1958.

From those three operations we -- and we looked through a number of these health physics reports, and the health physics reports tend to confirm that the operations occurred in the following buildings, which we are proposing to add to the class, and that's building 9202, 9204-1, 9204-3, 9206 and building 9212.

For these operations we have very limited air monitoring data. I think we have some air monitoring data for the Calutron operations and we have no bioassay data for thorium for any operations that occurred in this.

And we did provide nine example dose

reconstructions that are available on the back table, and I hope in the Board packets, for selected -- selected types of cases where we believe, collectively among our group, that they would shed some light on how NIOSH would go about doing these dose reconstructions. I won't read them all to you. They're there and I'd certainly be happy to go over any of them if the Board so desires.

So given -- given the data that we had available to look at, we ended up with a revised class definition that included all employees of the DOE or DOE contractors or subcontractors who were monitored or should have been monitored for thorium in the buildings that I just mentioned -- 9202, 9204-1, 9204-3, 9206 and 9212 -- and there's the usual proviso that it could be for the number of work days aggregating 250 days through the period, and that period is from January 1948 through December 1957.

So we did find evidence that there were sources of internal exposures as a result of thorium activities in those buildings listed, and we lack sufficient bioassay or area monitoring

data to estimate these doses with the exposure -- estimate the doses associated with exposures in these buildings.

Since we couldn't put a plausible upper bound on the thorium exposures, we made a determination that health was endangered and -- in the buildings where thorium was handled in those years, and that some workers in the class may have accumulated internal exposure through the episodic intake of thorium as a result of processing activities. That is, we did not find any evidence that there were discrete, high level exposures of thorium such as one might see in a criticality accident.

And this is a summary slide that shows the various categories of doses that we believe we can or cannot reconstruct. You can see the box checked for internal exposure of thorium. We do believe we can do internal exposure to uranium. I don't think we said that we could reconstruct doses to uranium workers. I think we said that we could just reconstruct uranium exposures, is what our concept was. But we also believe that we can reconstruct exposures to these other what I would call ancillary

operations, including the exotic radionuclides, polonium-208, and we can reconstruct external exposures to beta, gamma, neutron and occupational medical exposures. (Unintelligible due to operator interference) 140-page report, that was a walk-through. I can certainly answer any questions at this point.

DR. WADE: Do we have questions for Jim from the Board? Dr. Melius.

DR. MELIUS: Yeah, I have a short statement and a question. The statement is just -- back to the beginning of your presentation, I would just like to indicate I think that the Board does appreciate all the hard work and fast-approaching deadlines that both you and SC&A, everybody really, and the workgroup involved here undergoes. And we always know, no matter what we do whenever we have a meeting, at the last minute I'm going to be assured that we will receive some document in our e-mail, you know, ahead of time and -- and I think that, you know, that's part of the process and I think we -- we understand that there's not time to reconcile a lot of these -- these issues yet

and I -- I think we sort of understand also that timeliness is important. It's helpful to have information and that somebody's going to be last to get it to us before any meeting and so forth, so I think that's -- that's understood.

My question goes back to something you mentioned, which is the thorium definition -- or thorium worker definition. And given what Mr. Turcic said earlier and so forth and some of our other discussions, I think that we need to think a little bit about how we are going to define that or make that operational, should we approve that part of the . Whether to do it by building or some other way, I don't know, but -- so my question is have you given any thought to -- to that. One point you referred to it as -- as by building in your slide --

DR. NETON: Well, what I --

DR. MELIUS: -- and at another point we talk about it as thorium workers, you know.

DR. NETON: Yes. What I -- what I meant to portray here is that we believe that people who were engaged in thorium activities in those buildings, and by that we would say people who

were monitored or should have been monitored for thorium exposure in those buildings. It doesn't mean they couldn't have been uranium workers. For example, SC&A has done a nice analysis demonstrating that you could receive, for lack of a better term, side-stream exposure to thorium while working on a uranium process in those buildings. If that were true, then those workers should have been monitored for thorium and, in my opinion, would be covered under the provisions of this class.

DR. WADE: Yeah, but --

DR. NETON: The Department of Labor, though, ultimately will -- will decide the way in which they determine eligibility.

MR. GRIFFON: Jim, I -- I think that there's a question even in that definition 'cause earlier today you mentioned using the monitored or should have been monitored as we do in the current sense, and if we do that as in the current sense, it isn't radionuclide-specific but rather it's -- it's based on your -- your potential to receive --

DR. NETON: Well --

MR. GRIFFON: -- 100 millirem.

DR. NETON: -- let me -- let me --
MR. GRIFFON: Okay. That needs a clarification there.
DR. NETON: -- clarify.
MR. GRIFFON: And is it going to be consistent with your previous...
DR. NETON: Yes, it's consistent with my previous statement. I didn't mean to take it to the full degree, which is 100 millirem potential from all radionuclides present at the facility. I would say that if it was 100 millirem potential exposure to thorium, in this instance, that's what I would consider should have been monitored.
MR. GRIFFON: That -- that's inconsistent with the current regulations -- as I interpret them, anyway.
DR. NETON: I understand that. What I meant to say was 100 millirem threshold, and I didn't mean to imply that it was from all potential sources. It wouldn't make sense in this context --
MR. GRIFFON: No, no, that's --
DR. NETON: -- for me to say all --
MR. GRIFFON: -- that's why I'm asking.

DR. NETON: Okay, and I appreciate that clarification. That's not what I intended. I meant the 100 millirem monitoring threshold in this case would apply to the radionuclide which -- that we can't reconstruct.

DR. MELIUS: Yeah, but then that -- still back to my original question. How -- can you identify those -- those people? Can you go through that 1,300 people or whatever that have -- were part of the -- you know, sort of the potential people that could have been included in the petition based on years of work at that facility and identify those that were -- would fit your definition?

DR. NETON: We certainly would be willing to stand by Department of Labor and assist them in making that determination. We do have access to department -- departments associated with claims and workers. Much of that information is included in their files. But again, we don't make the determination. We do know that these buildings were there, and this is not very different than what Pete Turcic was talking about at Blockson Chemical they're required to determine who worked in building 55

where you heard the ultimate outcome of where they ended up there. I'm not suggesting that would be the outcome at Y-12, but it's up to Department of Labor to determine can you put these people in those buildings, and if not, what's your recourse? And I can't speak to how they would do that.

DR. WADE: For the record, Pete is not in the room at the moment. I think someone went to try and get him, but...

Other questions for Jim?

DR. NETON: Now I would -- I would say that we did vet this definition with the Department of Labor and -- and they did not have, at least in the conversation in which I was involved, an issue with this definition in itself.

DR. WADE: Any other questions from the Board for Jim? Dr. Lockey, are you still with us?

DR. LOCKEY: I am with you. It's difficult to hear the presentation. I -- I could pick up bits and pieces of it, but it -- it's tough to hear.

DR. WADE: Sorry. Do you have any questions, based upon what you did hear?

DR. LOCKEY: No, not at this time.

DR. WADE: Okay.

MR. GRIFFON: I guess I should say, before I -- 'cause I guess I'm next, but I should say, Jim, that on the workgroup calls, and I was going to bring this up anyway, that we had a fair amount of discussion about the -- the potential and the thorium workers, and I -- I guess from my perspective it was more of a question of did we -- did -- does -- is NIOSH giving DOL enough information to determ-- to adequat-- to adequately identify people who fit the class. And if -- if they -- certainly they can probably figure out buildings -- maybe they can figure out if they were in those buildings, but then how do you determine if they were, you know, potentially -- now I -- I still have some issues with this monitored or unmonitored with regard to exposure to thorium 'cause I think that that's a harder question, 100 millirems to thorium versus today's standard, but that's -- that's -- aside from that, how do you determine if someone was exposed to thorium in that building or was just in that building working on uranium operations, you know?

DR. NETON: Well, I can't speak for the

Department of Labor --

MR. GRIFFON: No, I know.

DR. NETON: -- but you've heard examples --

MR. GRIFFON: But I'm saying --

DR. NETON: -- that they apply and I can speak to those, that --

MR. GRIFFON: I understand, but I guess the discussions we're having on the workgroup is -- is -- you know, does -- I think -- you know, DOL needs enough information to make this thing -- you know, to be able to implement it, and if NIOSH doesn't give enough information, then -- then there -- you know, I -- I guess --

DR. NETON: I think you've heard ample evidence, though, from the Department of Labor that where the information can't be determined, they -- they seem to make very conservative decisions.

DR. WADE: We need to --

DR. NETON: But I --

DR. WADE: We need to get Pete in the room, and what I'm going to do, we'll take a couple more questions, then we'll take a break with the attempt to be to try and reconvene with Pete with us and then he can provide direct

testimony as to the -- the issues.

Wanda?

MS. MUNN: Not a question so much as a statement. We have a great deal of concern expressed from a number of areas about numerous different nuclides, and certainly a lot of talk about thorium. But the real question that probably should be kept in everyone's mind is not whether it was there, it whether the quantities were adequate to be significant in dose reconstructions and in terms of effect to the petitioners. That's -- that's something that I don't think, given what I believe the data is right now, probably can be defined very clearly. But the question, again, is not necessarily was it there. We know it's there. The question is was the quantity -- was the potential exposure significant.

DR. NETON: I think we do believe that the exposure potential was significant. It -- it takes a -- more uranium -- more thorium than uranium to get -- to get a dose, but it's on the order of milligrams. We're not talking about mass quantities. And given what we know about source term quantities here, it's our

opinion that it was definitely possible to get enough thorium airborne to -- to endanger the health of the workers in those buildings.

MS. MUNN: And you know the form it was in.

DR. NETON: Pardon?

MS. MUNN: And you know the form.

DR. NETON: To a large extent, yes --

MS. MUNN: To a large extent.

DR. NETON: -- we know what they were doing.

DR. WADE: Jim?

DR. MELIUS: Yeah, and I think that's precisely why it's important that we really understand how that definition of a class becomes operational because we want to make sure that what we're approving -- what we're recommending to the Secretary is -- you know, fits both the definition of endangerment and cannot -- not feasible to reconstruct their dose. So I -- I think we have to understand -- make sure we understand who we are including in the cohort and how that's going to be implemented, and that's why I think we need to -- this discussion.

DR. WADE: Okay. So with your permission, particularly, Mark, I would suggest we break

for let's say 10 minutes, and during that time the Chair will try and find Pete Turcic and see that he's in the room, and then we'll come back and begin with the report from the working group that will lead into Board discussion. Thank you.

(Whereupon, a recess was taken from 3:15 p.m. to 3:30 p.m.)

DR. WADE: Dr. Lockey, are you with us?

DR. LOCKEY: Yes, I am.

DR. WADE: Well, we have our seven back and --

MR. PRESLEY: I'm here, also, Dr. Wade.

DR. WADE: And that is?

MR. PRESLEY: Bob Presley.

DR. WADE: Okay, you're -- and we appreciate your being here as a member of the public. Thank you.

One of the things I neglected to do on the agenda was to leave time for petitioners to comment. I'd like to inquire whether the petitioners, Mr. and Mrs. Hall, are on the line and would like to make a comment. Is there anyone representing the petitioners present?

(No responses)

Is there anyone in the audience who has comment

to make that they might think relevant to the petition? Richard.

MR. MILLER: Hello? Does this work okay?

DR. WADE: No.

MR. MILLER: No, not at all.

DR. WADE: No.

MR. MILLER: My name's Richard Miller. I was contacted by the Atomic Trades and Labor Council, who has an interest in the Special Exposure Cohort petition, obviously because they represent people at the Y-12 and X-10 facility. Ken Cook, who is the president of the Atomic Trades and Labor Council, had wanted to send one of his former members to this meeting, an elderly gentleman named Joe Wallace, W-a-l-l-a-c-e, who's an insulator and -- but on such short notice he couldn't arrange to be here.

Nonetheless, the issue that they wanted raised, and I think what Mr. Wallace would have raised based on my telephone conversation with him, was as follows, and it is very brief. But it speaks to the question of class definition and some of the issues that have been raised regarding whether one should have an element or

isotope-specific class definition.
(Unintelligible interruption by a telephone participant.)
MR. MILLER: Mr. Wallace worked at Y-12 from 1955 to 1987 and he was an insulator. He said that he worked in the entire area, and he said there was not a crack or crevice that he did not get into in the course of his work.
I asked him about the class definition, and I said did you know, in your years of work there, if you or the plant were involved with processing of thorium, and he said no, I never heard the word pronounced. We nev-- he nev-- he said he never knew whether he would have had to have been monitored for thorium or not. All he said is that the terms he knew were we were either exposed to radiation or we had to be concerned about beta or gamma and that sort of thing, but he had never heard of the word thorium being used in the context of his work there from 1955 forward.
He also said with respect to his radiation dosimetry history -- and I want to point out here that Mr. Wallace has already been compensated under this program, so he is not

someone who would necessarily benefit from this petition. He said that he did not get a dose badge when he first went to work there as an insulator, and he -- when he started in the '50s. He said that tended to pick up more in the '60s. And I asked him about his participation in the bioassay program, and he said that in terms of seeking bioassays, he really thought his urinalysis began when the lithium enrichment process began, which would have been for mercury, and that that was when he thought he began actually in the '60s in bioassay.

He also spoke about the question of building-specific, would you be in a position that if you went from building to building doing your job, would you have had to create any record that you worked in say building 9206 or another building. And he said that once you went through the perimeter security, you went into the buildings where, as he said here, where he needed to go, without signing or getting any special clearance. So for -- there was no pass card. There was no record he went in and out of the buildings. Given that, it's going to

have real difficulty in establishing, if he -- if he were a class representative, how he could have been exposed to thorium in a particular building and be able to identify his work history as having been in that building.
He also pointed out that one badge served as a security pass for everything on the site --

MR. PRESLEY: Hello?

MR. MILLER: -- when he worked there, and he had what's called a --

MR. PRESLEY: Hey, John?

MR. MILLER: -- badge, and he said not until the early '60s --

MR. PRESLEY: Can you hear?

MR. MILLER: -- they had one special --

DR. LOCKEY: I can't hear anything.

MR. MILLER: -- they called the --

DR. LOCKEY: Lockey.

MR. PRESLEY: Hey, Jim?

DR. LOCKEY: Yeah.

MS. MUNN: They can't hear.

MR. PRESLEY: See if I can get somebody -- I don't know what's going on.

DR. LOCKEY: I can't hear a thing.

MS. MUNN: Hold on, it's probably the mike.

We're trying.

MR. MILLER: I'll try to speak up here. He said that not until the early '60s did he have to show a badge at what was called Beta 4 building. So I guess --

DR. LOCKEY: It sounds like they dropped off the face of the earth.

DR. WADE: Okay, finish your comment, Richard. We'll have to --

MR. MILLER: So having said that, I think that was all he was going to add, but that the question arises as to whether to have a process-specific class -- this would be my -- sort of my comment on it would be that -- or whether to have a building-specific class is one of the questions before you. And it just would seem from Mr. Wallace's experience that a building-specific one would be better than an element-specific one, but that even he would have great difficulty in this class ever establishing which building he was in or not in as an insulator.

DR. WADE: Okay, thank you. Pete Turcic is with us now. I don't know if the Board has any questions for Pete. When we concluded, Pete,

they were starting to form questions for you, and I don't know if we want to question Pete now or hear the working group's report. Okay. So questions for Pete --

MR. PRESLEY: Hey, Lew?

DR. WADE: Yes.

MR. PRESLEY: Can y'all turn the mike up or something? We can't hear a thing.

DR. WADE: Okay, I'll ask -- is that any better?

MR. PRESLEY: That's a whole lot better. Thank you.

DR. WADE: I'd ask all of us to speak very close to the mike.

DR. MELIUS: Yeah, the questions revolved around the issue of the potential class definition for this Y-12 SEC, and the questions -- is would we be better with a definition now as sort of thorium -- monitored for thorium or should have been monitored for thorium versus something else that would -- might be based on building or some other type of designation?

MR. TURCIC: What -- in practice, as I was, you know, explaining earlier, the way it's written now it would in fact become a building-specific

class.

DR. MELIUS: Uh-huh.

MR. TURCIC: The issue -- you know, as opposed to a function class, so you know, from that standpoint I'm not sure what the word -- you know, by adding or including thorium in the definition adds, you know, to the process. I mean that is the reason for the -- for the class and in our -- you know, the rationale, and so then by identifying the buildings where the thorium was present, that's how we would then operationalize that. And then relative to the issue on monitoring, all we would be able to do is apply -- you know, occupations under the current -- what would have internal monitoring.

DR. MELIUS: Uh-huh.

MR. TURCIC: And based on that, then basically what that would do is if someone was there for, you know, a short period of time, that may exclude them. But if someone was in that building, our interpretation -- you know, and assigned to that buil-- routinely assigned to that building, our interpretation would be that they should have been monitored, and so with

that interpretation, for all practical purposes, really becomes a building-specific class definition.

DR. MELIUS: Uh-huh.

DR. WADE: Thank you, Pete. That's most informative.

DR. MELIUS: Yeah.

DR. WADE: Any other questions for the good Mr. Turcic?

(No responses)

Dr. Lockey, any questions for Pete?

DR. LOCKEY: My question is, what Pete just said is that the petition is a building-specific petition in relationship to thorium?

DR. WADE: Pete? Would you repeat your question, Dr. Lockey?

DR. LOCKEY: I didn't quite hear what he said when he said this petition in effect would be treated as a -- a building-specific petition?

MR. TURCIC: Yes, we would -- we would apply the class by the buildings where the thorium was used, so in that sense, and as I said earlier, that is much preferable than a functional definition.

MR. GRIFFON: So -- so this distinction of

monitored or should have been monitored for exposures to ra-- to thorium, you -- you're really dropping that "for exposures to thorium" part of the -- in your practical application of this --

MR. TURCIC: Yeah.

MR. GRIFFON: -- you would just be saying we're looking at these buildings and determining whether they mon-- were monitored --

MR. TURCIC: Right.

MR. GRIFFON: -- or should have been monitored under the current standards.

MR. TURCIC: Exactly. Exactly.

DR. WADE: You'd be looking for people who worked in those buildings.

MR. TURCIC: That's correct, uh-huh.

DR. WADE: Okay. That's -- that's most informative. Thank you.

DR. LOCKEY: I have one other question.

DR. WADE: Surely.

DR. LOCKEY: If -- if in fact then -- if you were assigned to work in that building, that's understandable. What happens if in fact your assignment was at another building but you had access to the building?

MR. TURCIC: That would be treated in -- in the same manner. We would -- we would have to come up with -- you know, for occupations where that was common, we would then, you know, unless there was evidence to the contrary, assume that they have access to the building, you know, such as maintenance people and so forth.

DR. LOCKEY: And so they would be included?

MR. TURCIC: Yeah, they -- so they would be included in the class, correct.

DR. WADE: Okay. Anything else, Dr. Lockey?

DR. LOCKEY: No.

DR. WADE: Thank you. Anything else, Board members here?

(No responses)

Thank you, Pete. Please, if you could stay with us just in case we -- we come up with another question for you. I think your presence here has been most appreciated by -- by the Board.

MS. MUNN: Indeed.

WORK GROUP REPORT, MR. MARK GRIFFON, CHAIR

DR. WADE: We'll turn now to the chair of the working group -- that's one Mark Griffon -- who has a petition -- who has a report to bring to

the Board.

MR. GRIFFON: Yeah, I -- I just have a -- a brief report on our workgroup activities to date, and I'll try to not be repetitive from what we've heard from Arjun and from Jim, but I think -- mainly I want to kind of update on -- on some items that -- that came up during the workgroup in certain major categories that we -- some of which we've discussed already. And then at the end of this I want to kind of say, from the workgroup's standpoint, what we see remaining and -- and sort of discuss a path forward on this.

So basic-- the one thing I want to emphasize on the front end, as I saw Arjun and Jim present, I do want to -- and I think others have recognized this -- the time line, and that the evaluation report that -- that was -- we -- we received that on April 7th. We had been working on the site profile for a while, but really April 7th everybody was crunched, and then we -- we had a workgroup meeting on April 11th, received new materials on April 14th, 17th, had another meeting on the 20th, and then we're doing two drafts over the weekend in

preparation for this meeting. So you know, I think that -- that we're -- we're close on a number of issues, but I think in -- in some -- some statements had to be qualified 'cause there was a sort of a rushed review on everybody's part, so -- but I think the workgroup made -- made great progress so far in this.

First issue I wanted to discuss was -- was the thorium question. Some of the -- some of these things may have been already addressed by your statements, the Department of Labor, but during the discussion a couple of things were mentioned during the workgroup meetings. One was the question of these buildings, whether these four in fact were the only four, and I think we might have a little more work to verify that. And -- but -- but I think we're close. And again, the timing of this prevented us maybe from coming to complete closure on this. Jim did provide documents, but they were -- they were posted on the O drive, you know, maybe a week ago -- I'm not sure of the date on that, but you know, it was recent. So SC&A reviewed it, but we still I think need to

completely close that out.
Another discussion revolved around sort of the where or how -- the quantity, and Arjun's mentioned some things on that. I think we need further investigation on that, further clarification. Some of the waste -- I don't think he was proposing that the burial grounds at X-10 be included, it was just pointing out that somehow that volume was generated and where it came from was unclear. And if it in fact was generated from Y-12 processes, then the -- the magnitude of the quantities we're discussing might be a little higher. So again, that was -- I think that was the spirit with which that was brought forward by SC&A.
We did during the workgroup calls have a -- a good discussion about some data that exists. There's -- there's finally some ledger data -- ledger records that have tracked the quanti-- quantities of -- of all these isotopes that -- that were received by the site. And Mel Chew on the workgroup discussions went further than that and said that actually for thorium he believed that records existed that could show the -- the allocation of the thorium into

various buildings. So that's another piece of information we kind of recently heard.
Now he did also say that these records probably existed -- at least within classified records; I'm not sure if they were classified themselves or within a -- within a volume of classified records, but it might take some -- you know, some time to retrieve, but they -- he -- he believed fully that they existed.
Another point for consideration is that -- that was brought out was that there was some limited sampling -- I think Jim mentioned this. There was some limited air sampling during the period and my -- I think I'm correct on that, air sampling -- and then post this period there was some fecal monitoring for some workers for thorium. I believe it was fecal, not -- not urinalysis. So just another, you know, limited -- certainly limited data with regard to doing individual dose reconstructions, but there was some pieces there. Nothing during the time period in question, I don't believe, except maybe some -- some limited air -- air sampling.
And then finally I think the fourth point we discussed on the thorium was just the point

that -- that Pete addressed for us, which was the concern about defining this -- this -- this class definition. I won't go into that anymore. I think we've discussed that quite a bit.

The second big topic -- I think I got kind of four big topics that -- that we discussed. Data validation certainly, and it was -- Arjun went -- had quite a few slides on this topic. I -- I think it is worthwhile and -- and I -- I started to list out all the pieces of information that -- that NIOSH has gathered to -- and we've been calling it check reliability of the database for use, and again I'll say if -- if -- for people who weren't here yesterday, you know, it -- it becomes even more important probably at Y-12 because probably 80 percent of the workers do require coworker data to reconstruct doses, so if in fact it -- it's deemed unreliable, then we've got some problems. So a reliability check was -- was, I think, certainly worthwhile.

For external dose records, as was mentioned earlier, and the -- the '51 raw data didn't match. I think Jim now has -- has probably got

our answer for that, but as -- as -- at the time of these reports over the weekend, we didn't have that last bit of information, so there might -- that might be resolved. They did do some individual matches for 1953, and they matched very well with the database. They tracked several individuals and I -- I believe they summed the weekly -- weekly badge data together and -- and came up with the -- and it -- and it matched pretty well with the report-- the reported amount in the CER database in 1953.

The last part was this question of internal inconsistencies in the database, and even though it's -- you know, it -- it's -- well, there's two things there. One is, you know, the -- the penetrating millirem field wasn't adding up correctly with gamma plus neutron, as Arjun said, for '52 to '55. It -- it raises some -- some doubts of why that would have happened. The -- the -- I guess the other thing to -- to -- to point out is that the model -- the coworker model relies on data after that point. Right? So -- so it doesn't necessarily affect the coworker model, but it

just -- just -- it just sort of raises some questions of why that would happen and, you know, could something else have happened or -- or, you know, are there other problems in this database that we're just not able to take to ground. That's -- that's kind of the question. Now I -- I sort of listed these out 'cause I think it's useful to see, you know, as Wanda's raised yesterday and at previous times, you know, just this question of how much is enough, and I think we need to consider all these things. And just 'cause one thing -- we still have some questions on it, doesn't mean necessarily -- says the database is invalid, but you know, raises -- I think we need to take it in aggregate and consider it.

On the internal side, I think -- and it -- I -- I think that the data to -- to this point is -- and this is my opinion. It seems like they have a stronger argument for -- that it -- it is a -- is a reliable set of data. And a number of things that were -- number of individual data points from some of the early health physics reports that NIOSH was able to cross-walk, maximum values, the -- the percent

that were greater than the maximum permissible limit. Say they said five percent of values were found greater than 70, and they looked in the database and they actually matched that number fairly closely, so some of those things were matched up nicely.

I think the most convincing point for me was the graphs of the percentiles of data in the health physics report. They showed the 50th, 75th and 90th percentiles by -- by week over a half a year, and I know that NIOSH reported on one year and I think I -- I've actually -- I haven't written this out, but I did some back-of-the-envelope sort of checks on these other years that were in the reports and they seem very -- very close to the values. And that's reassuring in the overall sense 'cause -- 'cause really what you're doing with this data is you're relying on a distribution anyway -- in the coworker model -- so if the 90th percentile matches up, you might have some -- some small problems with certain data points, but -- but your distribution's -- basically looks the same, so that was reassuring.

The -- another point that was brought out was

the -- I don't know if Jim mentioned this, but the CER database actually is the Y-12 database. It was just transferred directly, so it's not as if this was a database made specifically for epidemiological research. It was taken in its entirety, so there wasn't any manipulation in between for -- for epi study purposes. And -- and further than that, they've produced a memo that seems to indicate that DOE had basically accepted the database data as the official record. And with that, the assumption is that that would have required DOE to check the quality of this thing before they allowed Y-12 to use this database as the database of record. They weren't able to track this primary source. They believe it exists somewhere, but -- some communication directly with DOE, but they did identify within a -- I believe it was a health physics report that cited that this communication had occurred with DOE and that they had approved it or something to that effect. I'm -- I actually haven't read the memo, so -- but it is a Hap West health physics report.

On the raw -- comparison of the raw data from

the urinalysis standpoint, they weren't as successful. But notwithstanding this, this good information. They have health physics reports and good corroboration. They did find some urine -- urinalysis punch cards, but they were really outside the period of concern. They were more in the 1970s, I believe. They were able to match them -- I guess reasonable matches were found. Part of the reason they didn't have -- they -- they couldn't do a direct comparison was because the card data did not include background values or -- or efficiencies, I guess, so they -- they had to assume certain nominal values and do a calculation and -- and got reasonable matches with the data they checked, and checked a limited number of cards on that. But again, the -- the other question there is it was sort of outside the period of interest.

Finally, at one point on the workgroup process it was indicated that the urinalysis log books were available, and then I guess further inspection -- they -- they just never turned these up, so we never were able to actually cross-walk anything with urinalysis log books.

So that's -- that's the overview of the internal sort of data elements they looked through. And I go through that list only because I think if we're -- if we're really considering, you know, how much is enough, I think you got to get a sense of all the elements that they looked at and -- and consider it that way.

You know, a summary for the external -- I think I've done the summary actually for both of these, and the internal, again, you know, the -- it seems that the HP reports with their percentile data, in my opinion, gives the strongest evidence. Should be noted, though, that these reports were mostly, I think, from the '51 through '53 time frame.

Now Jim just mentioned something that I wasn't aware of, that the mid-'50s reports are probably out there but they're still under classification review, so that -- that might provide even further corroboration on -- on that part of the database.

With regard to external dose reconstruction, I -- I think -- Jim mentioned, Arjun mentioned this and Jim both discussed this. I think

really where we're at with that is we need to finalize the review of the coworker models and -- both the gamma and beta coworker models and -- you know, notwithstanding the previous discussion about data validation -- assuming that the database is okay, I think at least we're -- we're -- from what I've surmised from the -- from the process is that we're likely going to end up with something that is not an SEC issue here. There might be some -- I -- I think in some -- in some respects, and probably because of the timing on this, there's a little bit of talking past each other on some of the statistical analysis of these coworker models, but I think that -- you know, in the end of the day it's likely not to be an SEC issue because it's -- it's just a matter of how to model it, not whether it can be modeled and not whether a maximum plausible can be established.

Then on internal dose reconstruction I think where -- where we stand -- there -- there remains this question of the uranium in the '48 to '51 time period, and I -- you know, I -- I heard -- it's interesting with -- we're -- we're pulling the other -- all perspectives

now, but I heard Arjun's interpretation and I heard Jim's -- Jim's sort of action on this, and again we're all in real time on this. I thought I -- I indicated the follow-up for that period was not just to determine if they had -- you know, for some odd reason all these guys had been fired the day before these samples were to be taken and they weren't in the database in '52. I -- I guess what we wanted was just evidence that what appears to be, the way Jim presents it, a very conservative approach, back-calculating from '52, assuming a chronic exposure during the whole time period. We just want evidence that that bounds these salvage workers who had a very -- it's a different type of job, different type of work and -- and I've at least seen some health physics reports that indicate a lot of times these salvage workers -- I saw one health physics report, I can't remember exactly when it was, but a high percentage of these -- these people were over the MPL and -- and out of -- out of four other workgroups there were -- there were one or two and there were like 13 of these people, so it raises the question in my

mind and I think in SC&A's mind that -- well, let's just make sure that we're bounding the dose. And we -- we talked about possibilities of, you know, was there any air sampling that could sort of -- they could look at during that period and say, you know, we're not going to rely on this for dose reconstruction, but it does show that our method is conservative, something like that. Or for example they could say we identified some salvage workers from that early time period and in fact we have at least this many and -- and -- that were still working in '52 and on the urinalysis program. I think that's the other factor. If they did salvage work from '48 to '51 and then shifted over somewhere where they weren't on the priority urine list -- they might not have been fired, but they might have been another -- you know, another job. So I thought there -- there was just -- and I don't -- I don't think it's -- I -- I think it's close to closed, but I think it needs just a final piece to -- to demonstrate that the approach you -- that NIOSH proposed is going to be bounding, that's all. Then we have -- from the internal side, I think

the other sort of action that I see out there is -- is on the exotics, and I think -- this -- this came -- as of our last conference call, I think Jim described a five-pronged approach, and I guess when I had the matrix I was looking for a -- you know, a methodology and I didn't even -- I didn't know it was going to be a TIB or what it was going to be, and Jim e-mailed me sort of a fi-- you know, five steps that would be taken to do these DRs. And it's not that it doesn't look reasonable, but I think we really haven't had time to digest that approach. And we did ask for at least maybe some sampling of what these incident data reports look like, and I know Jim said he -- you know, they can be pulled and they're wor-- they're probably working on that, working toward that. But I think that that's -- you know, that we just want to see a little bit -- maybe have a little further discussion on that approach and everybody can sort of sign off on this five-pronged approach. I think it's -- it's almost there, but again it was -- it was the day after the last meeting, probably the -- April 21st that we sort of got something in writing on

this and...
And then lastly, the DR examples. I think Arjun mentioned this. The -- these have come to us late and they're -- SC&A is currently trying to go through these, but I think these are important and that -- as a Board we've always said that this is where we want to see sort of proof of principle, and I think we just need to -- to allow ourselves time to -- and SC&A time to adequately review those and come back to us and say okay -- you know -- and I think we -- we got quick presentations on those, but you know, just the timing I think on those is the issue, not so much the content yet, but the timing and time to review them. And I guess to conclude, I think we're pretty close, but you know, I -- I know -- I was -- you know, there -- there's some -- there's many little things, but I think we're pretty close overall and -- but I don't think as a workgroup that we're prepared at this meeting to make a motion on the class, and I -- I think I -- at least as the workgroup we would recommend that we continue our workgroup process and be prepared at the next Board meeting to bring a

recommendation to the Board. And like I said, I -- I don't think -- and I would hope that we're not down to -- you know, I hope we don't have seven workgroup meetings in between this and the next Board meeting. You know, I think we're closer than that and it can be achieved by that, and we'll have had time to step back and assess these -- these sort of lingering elements adequately. And that's --

BOARD DISCUSSION

DR. WADE: I heard at the end of your workgroup report a recommendation. I believe that the procedure would be to have that recommendation seconded and then voted upon, accepted by the Board as the Board's recommendation.

Before that, though, I'd like to give an opportunity to other members of the working group to offer any opinions that they might like. The working group consisted of Wanda, Mike and Robert Presley. Robert Presley did not participate in the working group's deliberations as it related to the Y-12 SEC petition, but at this point I think it would be appropriate to hear if there are any comments from other workgroup members that want to be

put on the record.

MS. MUNN: Yes, this has been an extremely difficult but ultimately, I think, fruitful working group. It has covered a much larger number of issues than this member ever anticipated when we undertook it. But I hope that it will serve to establish a method of approach for other similar complex sites that will make it easier in the future.

I agree with Mark. We're not quite ready to say yes -- I would like to be able to say enough -- this is enough, we've done it. But there are one or two, as Mark pointed out, three or four now very well-defined issues that need to perhaps have a ribbon tied around them. And I would hope we could have one working group that would not require an enormous amount of effort on either the agency or the subcontractor.

DR. WADE: Thank you. Mike, any comment you'd like to add?

MR. GIBSON: I'd just like to say that I agree with my working group colleagues that this has turned into a lot bigger issue than what we anticipated. There's been tons of documents

back and forth by a lot of hard work by NIOSH and SC&A and it does take a lot of time to review them. And each time you review them, it -- it pars down the issues, but it brings out more specific points that you just need to run to ground. And you know, I think we've come from many issues down to just the few that Mark mentioned, and I, too, believe that another -- another call or two, hopefully at the most, maybe we can be done with this and get the matrix all settled out and be ready to present something to the Board at the next meeting.

DR. WADE: Thank you. Mark, could I ask you to restate your recommendation? After that I'd be looking for a motion that would embody that recommendation.

MR. GRIFFON: All right.

MS. MUNN: (inaudible)

MR. GRIFFON: What's that?

MS. MUNN: One face-to-face.

MR. GRIFFON: Yeah, I -- I recommend that -- that our current workgroup proceed our deliberation process with NIOSH and SC&A to revolve -- resolve the final outstanding items within the Y-12 -- or with-- identified in the

Y-12 SEC evaluation report review.

DR. WADE: Is there an expectation that it would come to the Board for its next meeting?

MR. GRIFFON: Yeah, with the expectation -- thank you, Lew. With the expectation that we'll come to the next Board meeting with a recommendation on the evaluation report.

DR. WADE: Okay. I would entertain a motion to that effect.

MS. MUNN: So moved.

DR. WADE: Second?

MR. GIBSON: Second.

DR. WADE: Okay, we have a motion and a second. Is -- it's open for discussion.

DR. MELIUS: First of all -- I mean I -- as complex as this has been, I don't think it's certainly out of the ordinary that it would -- given that the SEC evaluation report was only received a few weeks ago, that it's going to take some time to eval-- you know, review that and -- and make recommendations on that. So doing that at the -- the June meeting I think is -- is appropriate.

My question to you is the -- is -- are we resolving the site profile review or are we

trying to resolve issues related to the SEC review? I don't want to wish more meetings on you, but I'm a little confused by where we stand 'cause we started out as a site profile process and then we've sort of morphed it into a SEC process and I'm not quite sure where we are with --

MR. GRIFFON: We're closing only on the -- I'm talking about closing on the -- the motion described was for the evaluation report, not on the site profile.

DR. MELIUS: So there'll still be issues related to the site profile --

MR. GRIFFON: There's still -- yes --

DR. MELIUS: -- since it covers --

MR. GRIFFON: -- beyond cl--

DR. MELIUS: -- other years -- additional years and --

MR. GRIFFON: Correct.

DR. MELIUS: -- so forth. Okay. I just was trying to understand that and...

MS. MUNN: Not many, though.

DR. WADE: Other discussion?

DR. MELIUS: I guess I would like some discussion of how we sort of present this to

the Board, but I think we need to vote on the motion first.

DR. WADE: Other discussion?

(No responses)

Dr. Lockey, do you have any discussion to offer?

DR. LOCKEY: No.

DR. WADE: Other discussion?

(No responses)

So we have a motion and a second. I guess because Dr. Lockey is on the phone I'll just go around the table and ask you to designate whether you are in favor of the motion or not. Gen?

DR. ROESSLER: In favor.

DR. WADE: Wanda?

MS. MUNN: Yes.

DR. WADE: Jim?

DR. MELIUS: Yes.

DR. WADE: Mark?

MR. GRIFFON: Yes.

DR. WADE: Mike?

MR. GIBSON: Yes.

DR. WADE: Brad?

MR. CLAWSON: Yes.

DR. WADE: Dr. Lockey?

DR. LOCKEY: Yes.

DR. WADE: Okay. So the motion is approved. What's your pleasure in terms of other issues related to the Y-12 SEC petition?

DR. MELIUS: My issue or request was at the time we get this present-- the next presentation of the Board -- first of all, I don't think that Jim Neton or someone from NIOSH needs to repeat the whole presentation we -- we've done before. We've heard this before. But there -- there may be some key issues that need to be presented and one of -- would be, I think, helpful to start out maybe with Mark sort of -- or someone from the workgroup presenting sort of what the workgroup has done and sort of just briefly going through issues that have been resolved and here's what's left. And then give NIOSH an opportunity to -- to maybe speak more to -- to those issues, as well as SC&A, as appropriate. And then we can come to some resolution -- resolution on -- on that and a -- and a, you know, final recommendation and a vote and so forth.

MS. MUNN: The matrix returns.

DR. MELIUS: Yeah, I would just -- just a comment on that. I just think it'd be helpful --

MR. GRIFFON: -- matrix.

DR. MELIUS: -- for those of us not -- not been involved in -- or outside this workgroup to sort of understand the context -- I mean 'cause we tend to narrow down the issues and forget all the things that have been taken care of already, which -- which is sizeable, yet those are in some ways just as important to making a decision on the SEC --

MR. GRIFFON: That's right.

DR. MELIUS: -- evaluation.

MR. GRIFFON: And I would remind, if you need some reading material on the flight home, you know, there's -- there are like four matrices I think developed for the Y-12 review that are dated April 22nd, March 27th, February 27th -- actually it might be the -- those three, and they sort of track the progress so you can see items either being completed or -- some items completed and new items added, you know, so you can see sort of the evolution of it if you really want to look at those details. But I'll

also offer that I'll -- I'll give a summary of where we've -- what we've done, what we've closed out and where we -- what remains, that kind of thing.

DR. MELIUS: If I put everything into my carry-on, I think I'd have to throw out my clothes to -- all the Y-12 information -- over the limit.

DR. WADE: Any other discussion on this issue before I turn it back to Dr. Ziemer?

(No responses)

I'd like to end with one comment, as a Designated Federal Official. I think the Board does need to continue to address the issue of how much is enough. I mean it's -- it's a difficult issue. I applaud the work of everyone in terms of digging in this, but -- but I do think that the question of how much is enough is a valid question and it needs to be -- to be looked at.

Also I would remind you that timeliness is a virtue we've all espoused, and I think we want to live true to that virtue as we approach making a decision on this -- on this very difficult issue.

And my last act as Chair would be to formally

thank Pete Turcic for coming. I think your presence here added a great deal. I would suggest that the Board exercise the prerogative of inviting Pete back regularly to -- to participate in these discussions.

DR. MELIUS: I'd like a trip to Washington.

DR. WADE: Okay, so this issue's closed and Dr. Ziemer can come back.

MR. GIBSON: Lew, --

DR. WADE: Oh, I'm sorry.

MR. GIBSON: -- just one comment is that throughout this process, hopefully when everyone on the Board sees the iterations of the matrix and everything else, it may help pare down future working group actions that, you know, may not be as -- as long-winded and tedious and kill as many trees.

DR. WADE: We -- we will certainly hold that --

MR. GRIFFON: Lessons learned, yeah.

DR. MELIUS: Yeah, but -- I'd just express a contrary opinion. I think -- I don't think we -- you remember this started as a site profile review, and so by the very nature of that there's going to be a lot of -- a lot of issues. It's a complex site with a lot of data

and I don't think we need to worry too much about the fact that it takes a long time and takes a lot of effort. And yeah, hopefully we learned from what we've done so far, but at the same time I don't think you need to apologize by the fact that you -- you made the effort.

MR. GIBSON: Well, I -- I really wasn't -- I guess what I was saying --

DR. MELIUS: I know what you were saying.

MR. GIBSON: -- some of the lessons we've learned is -- you know, I think the group members would agree with me that I think we've learned conference calls -- eight or nine-hour conference calls on these issues are as productive as face-to-face meetings.

DR. ZIEMER: Okay, thank you very much. A couple of housekeeping things before we move forward. Board members, you should have received on your -- at your table place the minutes for the January 24th through 26th meeting, and we will act on those tomorrow. I want to make sure you're aware that you have some bedside reading tonight.

Also we have an early draft -- at least I do; do the other members have this?

DR. MELIUS: All the members do, and then I -- I think, after getting a little bit of input from the members, we can revise and make it available tomorrow in time for --

DR. ZIEMER: Yeah, we're not going to --

DR. MELIUS: -- our full --

DR. ZIEMER: -- act on this, but I -- I want the members to note that you have a preliminary version of the proposed motion dealing with the Pacific Proving Ground SEC petition that Dr. Melius has prepared for us, and this will be an opportunity for you to see it in advance before it comes to the table tomorrow. And I guess, Jim, if there's specific questions -- I don't think we want to discuss the motion now, but people can have a chance to digest it and even make suggestions to you off-line, if necessary.

DR. MELIUS: Correct. There's some new wording in there relative to some issues that we haven't considered before, and I think since we have two motions to deal with, it's helpful to get some input on both --

DR. ZIEMER: Right, and the motion for the other site will be somewhat parallel to this. I think the -- the new material is the second

to last paragraph, specifically, that deals with the issue of those discrete events.

DR. MELIUS: Right.

MR. PRESLEY: Jim, will you send me a copy on e-mail, please?

DR. ZIEMER: Yes, we need to e-mail a copy to Mr. Presley and to Dr. Lockey, as well.

DR. MELIUS: Yeah, as I get to -- when I get to my room tonight I'll do that.

DR. ZIEMER: You'll do that. Wanda?

MS. MUNN: That's what my card was up for. I wanted to make sure that the Chairman of the NTS group had a copy of this and that Dr. Lockey did, as well.

CONFLICT OF INTEREST

DR. ZIEMER: The other issue now that we carried forward, in a sense, from this morning -- we had the initial discussion on conflict of interest. I indicated this morning that we might have further time to discuss that. It could also be carried forward to tomorrow. But we do have a little time yet this afternoon, so we could reopen that discussion on conflict of interest, having had, first of all, the materials from NIO-- or from -- yes, from

NIOSH, the draft of their proposed policy, some additional input from -- from Mr. Miller and some others.

So let us reopen the floor for discussions on conflict of interest and at least talk about issues of concern. We don't have to necessarily come to closure on these now, but I think we need to get on the floor either ideas or concerns that individuals may have relative to the policy or its implications.

Dr. Melius, you were waving your tent there. Is that --

DR. MELIUS: Give me a second here --

DR. ZIEMER: -- or is that just a --

DR. MELIUS: If somebody else is ahead of me, I --

DR. ZIEMER: -- it's just a habit.

DR. MELIUS: Little bit of a habit.

DR. ZIEMER: Yeah. Okay, Wanda Munn is going to kick it off.

MS. MUNN: Although we -- I don't know about the rest of the Board. Having not had an opportunity to really absorb this and think about it very deeply, it nevertheless gives one pause. The concern is primarily what drives

the need for these extensive permutations with respect to conflict of interest; the fear that this is being driven by perceptions rather than by realities. There is no way that changing our approach will, I believe, change perceptions with respect to conflicts of interest. Anything that we do can always be improved. But there is a real reason to try to be very clear about what specific parts of our activities that we undergo here are being perceived as being questionable, and why those perceptions exist. One constantly hears that perception is reality, and I personally refuse to accept that. Perfection is not -- perception is not reality. Reality is reality. And it behooves us, as we look at things like conflict of interest proposals, to identify what better situation would this change put us in. In the same breath, what additional problems does this bring to us. One can't help but be concerned over the enormous amount of time, effort and consequently financial expenditure that's being, from my perspective, proposed as a result of this new document.

DR. ZIEMER: Okay. Yes, Dr. Wade.

DR. WADE: I'll try and address that, Wanda, although, you know, there are many answers to your question. But I'll give you the agency perspective in terms of what drives us. Again, we're doing the people's business and -- and in that business we are passing judgment on individuals' claims by -- by a dose reconstruction. We're passing judgment on peoples' claims with regard to the SEC process. So we are involved in that -- my agency is involved in that. This Board is involved in making recommendations to that effect. We therefore need to be sure that the people who we are rendering judgments about can have confidence in the impartiality of the deliberations and the process. And I think one of the things we worry about is, if you look back in history at a particular site, and if you were to find the people who built and owned and administered the -- the radiation health protection programs at that site now coming forward to pass judgment on the adequacy of what they've done by virtue of their work in terms of dose reconstruction or SEC petition evaluation, that raises a concern for my

agency. And that's part of what drives us down this path.

DR. ZIEMER: Okay, thank you. Dr. Melius?

DR. MELIUS: Yeah. Yeah, I would certainly concur with what Lew said, and I think it's also critical to the credibility of this program that we have a defined approach to that, that we've not done that in the past as well as we should and I think now's the time to make sure that we correct those -- those problems. You know, recognizing that it does require time and effort, but I think it's critical if people are going to trust this program and trust the decisions that are made within the program.

My -- my question is -- and I don't have the former policy in front of me so I'm going from memory, but if I understand this correctly, we -- in this new policy we've now made some changes that make this -- the new policy less stringent than the old. And it's particularly in terms of how people, the site experts and the subject experts -- particularly site experts -- are handled. If I -- my recollection from the old document was that

site experts was considered a key program function. Now this current -- in the current one they're listed as -- in it are non-key program function, but then we have documents that are key program function documents, and it's extremely, at least to me, very -- very confusing trying to und-- understand that -- that change and what's meant by that. But I -- I think that gi-- given some of the issues that have been raised about -- at some of the sites so far, I think that the site experts have been the ones that -- where there has been the most que-- question raised about their roles and so forth. And I want to be clear that I understand what you mean by this new doc-- new document relative to those people.

DR. WADE: And I appreciate that, and I apologize for the -- for confusion. It -- we would try to eliminate it, but it's impossible as you deal with issues of this type.

As I mentioned this morning, if someone worked at a site -- at a site in question, that person would be found to be conflicted, and therefore that person could not perform a key program function. It doesn't mean that person could

not be a site expert. And as a site expert could provide input to these processes, could even speak at a meeting to these processes, but they would not be the principal author of the document, the reviewer of the document or the approver of the document. So I don't think in that sense it's intended to be any less stringent than it was before.

But I've had several people mention that to me and I think we really need to explore that in more detail. It was certainly not the intention of the authors of the document to relax on that issue, but -- but to make it clear who -- who was contributing and to do the attribution as appropriate, but not to allow someone who was -- who had worked at that site the ability to perform a key program function.

DR. MELIUS: It's -- it's certainly not how I recall our discussion of the last conflict of interest policy. And as I said, I don't have a copy with me and it's -- I'd certainly raise some issues about them representing the program and speaking for the program. I think that's a fundamental source of a lot of the -- the issues we -- we have now. A person who's a

site expert goes and holds a meeting with the representatives of the workers at the facility to get input about that facility. Well, it's input about the program that that per-- that site expert had developed and people I think are going to naturally have some issues about whether that site expert is going to take that information back and, you know, treat it -- treat it fairly and -- and so forth. I mean --

DR. WADE: That is a valid point.

DR. MELIUS: Similarly, I -- I think that we also have the document own reporting -- a lot of responsibility on them, and certainly we -- we haven't seen evidence that and -- some of the recent workgroup discussions and so forth the reported document owners have not really been significant participants, so -- we've instead heard from site experts and subject experts, and I think that raises some problem-- problems, also, particularly when they -- again, if someone's called on to address something it's one thing. It's -- it's another thing when they're the ones essentially leading the discussions.

DR. WADE: Understood. I -- those are issues I

have been aware of and I've been on all of the workgroup calls. I think we have been trying to work that issue, and in my monitoring we've done a better job of seeing that all people with conflicts are identified and that those people with conflicts are not leading the discussion but are only there to ask -- answer specific questions when asked. Again, we need to continue to monitor that, but that's the -- the goal that we have in mind with regard to the interactions, the workgroup calls, and I think we're doing a better job on that.

DR. ZIEMER: And it may be that one has to look at the other side of this at the same time and not only assure that the owner has no conflicts, but that the owner is in fact in a position to actually make the judgments on the validity of the site expert's testimony and the other materials that come so that -- so that there's a level of confidence that the site (sic) owner himself or herself is truly a competent individual and can -- that we have confidence in the owner so that if there is an issue with -- or some possibility that there's a perceived bias, that the owner can deal with

that in a clear and effective way.

DR. WADE: And that's the conundrum in what we're trying to do. You want someone who is competent and able to make that judgment, and yet you want a person who is not conflicted.

DR. ZIEMER: Not the expert. Dr. DeHart?

DR. DEHART: In your presentation this morning and in my brief opportunity to review this, I see -- I think for the first time -- a true balance. In other words, in the past we have taken great care to ensure that anyone who has worked in behalf of the government is watched over very carefully. Now we're seeing that if there has been a litigation and -- both sides now are expected to be -- be watched, as it were, for -- for bias and other issues.

DR. WADE: Thank you. And just to give some credit, the model that was used for the document in front of you really was the SC&A conflict of interest policy, and it contained that balance and we found it important and tried to incorporate it into this document.

DR. ZIEMER: Other comments?

DR. MELIUS: Yeah.

DR. ZIEMER: Jim.

DR. MELIUS: Just if, again, my recollection is correct, we made a deliberate distinction between the SC&A -- what we -- the policy for our contractor, SC&A, and the policy we've had in place for -- for other participants in this program and so forth, and there were reasons for that and the -- the balance that Roy applauds, I have some concerns about. We had gone through this once before in the Board and reached a decision. This is a ma-- major change in that decision and I think there are some potential problems with it.

DR. WADE: It does represent -- you're correct in your reading. We are not distinguishing between anyone within the family as it relates to a conflict of interest policy, so the Board needs to be clear on that and individual Board members need to be clear on that.

DR. ZIEMER: Yes, Mark.

MR. GRIFFON: I did -- just a -- I mean just to maybe reflect on workgroup experience as -- as Lew for -- was -- was talking about, and -- I mean one observation of mine, and you know, I think it -- it needs to come out, you know, directly, is that -- you know, it says for

document owner -- for Rocky Flats the document owner is Karin Jessen and the last -- the first workgroup call on evaluation report that we had, it strikes me that Karin Jessen wasn't on the record except to introduce herself. So if she's -- has all these responsibilities relevant to this evaluation, independent of the site -- site experts and subject matter experts, seems to me that -- that she didn't play a very big role in the deliberations. And I guess one would be concerned that the subject matter experts and site expert are really driving the thing and a -- another name is going on at the end. That -- that's a concern, so --

DR. WADE: It's a concern for us, as well.

DR. ZIEMER: Thank you. Lew, give us some idea -- you did already -- of what you see as the timetable for the agency. Are we in a position where we'll have time to formulate formal recommendations or what -- what are we looking at in terms of progression here?

DR. WADE: Yeah, I mean I -- it -- it's risky to -- to imagine, but I would think that --

DR. ZIEMER: Or is there a target closure date?

Let's start there.

DR. WADE: Well, no, there isn't one, and I would think two Board meetings forward would be, I think, a realistic closure date, knowing how this process works. And again, we don't want to rush to finality, although again, as I said, we are interested in being guided by the principles that we espouse, but I would think that at the next meeting we will have heard your comments, both individually and -- and possibly collectively. We would offer you another draft. I would see another iteration before I would hope to -- to bring the curtain down.

DR. ZIEMER: More comments or suggestions at this point, or issues that you at least want to raise? Again, we'll have the opportunity then to formalize recommendations at a somewhat later date. As was suggested, we haven't had full time to digest this, but you might -- having looked at it and heard the presentation, you might have some initial reactions or -- or concerns, some of which have been raised already. An additional comment?

DR. MELIUS: Just one additional question. Who

-- who is the document owner?

DR. WADE: This document owner?

DR. MELIUS: And who are -- who are the site experts that -- that participated --

DR. WADE: I'll define -- I'll define the document owner as John Howard is the document owner. I am simply the person --

DR. MELIUS: How come he's not speaking here?

DR. WADE: Well, because he's the boss and I'm not. You see, that's how it tends to work. I am the target, he is the document owner.

DR. ZIEMER: Actually we -- we left that one out, the target. Put that in -- a new role.

MR. PRESLEY: Hey, Lew?

DR. ZIEMER: Yes.

MR. PRESLEY: Bob Presley.

DR. ZIEMER: Yes, Bob, go ahead.

MR. PRESLEY: Can you see that John and I both get a copy of this 'cause we're running blind on it.

DR. WADE: Okay, we will certainly attempt to e-mail something to you.

DR. MELIUS: It was already e-mailed.

DR. ZIEMER: Yeah, and --

DR. WADE: It has been e-mailed before, but we

will do it again.

DR. ZIEMER: Robert, this is -- the document will be entitled "NIOSH statement of policy, conflict of interest, draft of 14th February, 2006."

DR. WADE: I think it was sent to you probably two weeks ago, or cl-- well, about ten days ago, but we'll send it again.

MR. PRESLEY: Thank you, sir.

DR. WADE: You're most welcome. Thank you.

DR. ZIEMER: If -- if there's no further discussion on this topic this afternoon, I think we will go ahead and come to closure for the day, realizing that you'll have a chance to get some dinner and return for the public comment session at 7:00.

I suspect many members of the public who wish to comment will be coming at that time and signing up. If any are here now and haven't signed up to make public comment but wish to do so, please avail yourselves of that.

We will not restrict the comments to the Rocky Flats issue, so there will be opportunities for others to comment, as well.

Any additional housekeeping items to come

before us?

DR. WADE: No, that's it.

DR. ZIEMER: It appears not, so we will recess until 7:00 o'clock. Thank you very much.

(Whereupon, a recess was taken from 4:35 p.m. to 7:00 p.m.)

OVERVIEW OF BOARD ACTIVITIES/PUBLIC COMMENT
DR. PAUL ZIEMER, CHAIR

DR. ZIEMER: Good evening, everyone. I'd like to call the meeting to order. This is a public comment period for the Advisory Board on Radiation and Worker Health. My name is Paul Ziemer. I serve as Chairman of this Advisory Board. I want to take just a couple of minutes to tell you a little bit about what the Board does, and maybe a little bit about what it doesn't do, and acquaint you with that. It's not always clear to people who these folks are sitting up here; what do they have to do with anything.

Well, I want to tell you that the Advisory Board is independent of the federal agencies that are operating the compensation program. The compensation program is basically operated by several agencies -- Department of Labor, Department of Health and Human Services and

NIOSH, and Department of Energy. This Advisory Board has been appointed independently of those groups. These individuals are appointed by the President. They represent independent people, as it were. We are all individuals, as I say, not connected with the agencies involved.

I myself am a retired professor from Purdue University -- any Boilermakers here? I'm the only one, huh? Okay. We're Boilermakers. There may be some other union boilermakers, but we're the Boilermakers at Purdue. Anyway, I'm a retired professor who spent most of my -- I spent most of my career teaching in the area of radiation safety, or health physics, so that technical connection is perhaps the reason that I'm involved here. But we have individuals on this Board with many different backgrounds.

I'm going to ask each of the members of the Board to introduce themselves by name, tell you where they work -- or where they did work; some are retired like me -- and also tell you what their area of specialty is. We'll begin here with Dr. DeHart. Roy, use the mike, please.

DR. DEHART: Good evening. I'm Dr. Roy DeHart. I'm a physician, an occupational medicine,

aerospace medicine, Board-certified physician in that area. I've had the opportunity to work in Oak Ridge at X-10 and Y-12. I'm currently a professor in medicine at the University of Vanderbilt in Nashville, Tennessee.

DR. ZIEMER: Bradley Clawson.

MR. CLAWSON: My name's Brad Clawson. I'm a senior operator in the nuclear fuel handling division at the Idaho site, the INEL out there, and I'm still working out there, unlike some of my other ones. I work in the field -- my specialty's the -- mainly deal with handling uranium products and the remnants of a lot of the Cold War.

DR. ZIEMER: And this is Mike Gibson -- maybe stand, everyone, so everybody can see you. It's hard to see you sitting, maybe.

MR. GIBSON: My name is Mike Gibson. I'm a --

DR. ROESSLER: His mike is better than yours, Paul.

MS. MUNN: Yeah.

DR. ROESSLER: His microphone is better than the one you're using.

MS. MUNN: Is it? I didn't think so.

DR. ROESSLER: Oh, really? Okay.

DR. ZIEMER: Hold it up there, Mike.
MR. GIBSON: My name is Mike Gibson. I'm -- I've left Mound facility three years ago as they were closing it down. I'm a former union president, electrician by trade. I'm a former vice president of the Atomic Workers Council that represented some of the former OCAW sites who are now United Steel Workers. I was appointed to this Board in August of 2002.
MR. GRIFFON: Hi, I'm Mark Griffon. I'm a consultant. I do radiation-related research. I'm a health physicist by training and I'm out of Salem, New Hampshire.
DR. WADE: And my name is Lewis Wade. I'm not a member of the Board. I represent the Secretary of Health and Human Services on the Board as a Designated Federal Official, and I'm proudly an employee of NIOSH and the federal government.
DR. MELIUS: And I'm Jim Melius. I'm an occupational physician. I work for the laborer's union.
MS. MUNN: I'm Wanda Munn. I'm a nuclear engineer, retired from Westinghouse Hanford Company. I live in Richland, Washington.

DR. ROESSLER: I'm Genevieve Roessler. I'm retired from the University of Florida. There I was a professor of health physics. I moved to Minnesota so I could be closer to some of my seven children and 16 grandchildren.

DR. ZIEMER: The fellow here who some of you think is gasping for oxygen is actually our court reporter, who is basically one of the top recorders in the world, actually -- probably the top one in the U.S., but he gets every word that we say.

This Advisory Board meets on a regular basis, and our function is to help, as it were -- and sometimes it's not always interpreted as help -- but to help the agencies involved in making sure the compensation program operates the way Congress intended it to. In that sense we have what you might call oversight responsibilities. We review -- we actually do audits of some of the dose reconstructions that are done by NIOSH. We get involved in the petitions for Special Exposure Cohorts, including the Rocky Flats petition that is under way right now, and this Board has the responsibility of making a recommendation to the Secretary of Health and

Human Services on those kinds of petitions. And then the Board also has responsibilities on reviewing some of the other work that's done in connection with the dose reconstructions. We do not handle the individual dose reconstructions. Those are handled through Labor and the reconstructions through NIOSH. Likewise the individual claims, anything that has to do with the claims, the only real need for us to learn about your case is because it helps us understand how the program is working, or in some cases you might feel is not working. So we're pleased to hear your experiences or experiences of one you are representing. We try to take that input seriously and understand what we can do, what our input can be to the program to help correct areas where there are concerns or problems. So keep that in mind as you talk to us tonight. If you have a particular issue with your case, we can certainly make note of it, but your individual case does not get handled by this Board -- nor are we an appeals board. If your compensation is turned down, we do not get involved in appeals, either. So I just want to make that

clear. So we are more of an oversight group trying to help make the program work better. And as I say, how well we do that is not always clear. We're trying to do that well. These are independent people, as you say.

Lew Wade is here representing NIOSH because under the Federal Advisory Act laws, each board of this type has to have a Designated Federal Official who serves as kind of an executive secretary, makes sure that our meetings are scheduled and our agendas are set and so on. But he is not a voting member of this Board.

We're also aware that there is a Rocky Flats petition for Special Exposure Cohort in progress. In the morning more of that petition will be presented to this Board and at some point this Board will be in a position to actually make a recommendation to the Secretary on that petition. So that gives you a little bit of a background about what we're about.

I'm going to have our Designated Federal Official in a moment make a few remarks. I do want to see if there are any Congressional delegates here -- anyone representing either the Senators or the Congressmen -- yes, and

let's recognize each of them. If you would each approach the mike and maybe -- and if you have any preliminary remarks at this time, we'd be pleased to have you make them, as well. I think we have several here. Just go -- you can figure out who's going to go first.

MS. ALBERG: Thank you. My name is Jeanette Alberg. I'm with U.S. Senator Wayne Allard's office. We are here today obviously to take part in this public comment session. The Senator today also actually drafted and sent a letter to Secretary Leavitt encouraging to use fair consideration on the steelworkers' SEC petition, so depending on where that goes, he has actually sent a letter to the Secretary asking for fair consideration. I do have copies of the press release which includes that here in the back, or you can also visit with me, as well. So thank you.

DR. ZIEMER: Thank you very much. Either of the other individuals -- at least introduce yourself right now, and if you wish to defer comment, that would be fine as well.

MS. MINKS: Sure, I'm Erin Minks with Senator Salazar's office, and I'm here with my

coworker, David Hiller, who has a statement from the Senator to share with you tonight.

DR. ZIEMER: Thank you. And David, we'd be pleased to have that statement now, if you wish.

MR. HILLER: Thank you, Dr. Ziemer. This is a letter that was signed by Congressman Mark Udall, as well as Senator Ken Salazar, addressed to the Advisory Board.

(Reading) Dear Dr. Ziemer and members of the Advisory Board. We have recently learned of a request from one of the petitioners on the Rocky Flats United Steelworkers of America petition to delay the Advisory Board's decision to determine Special Exposure Cohort status. As you know, that petition is on the agenda for consideration during the Board's working meeting in Denver from April 25 to 27. We ask that you grant this request, which we think is appropriate because of ongoing concern on the part of independent petition reviewer S. Cohen & Associates about the quality and reliability of data, a problem that affects their ability to provide a meaningful report to the Board in time for this meeting.

When the Rocky Flats United Steelworkers of America Local 8031 filed their Special Exposure Cohort petition in February 2005 they hoped for prompt and fair consideration of their request to be included in the Special Exposure Cohort. But it is more important that the consideration be fair than that it be prompt, especially now, more than 14 months later. The essential component to this fair consideration is to allow S. Cohen & Associates the time necessary to perform a careful and complete review of the petition.

As you may know, our offices have participated in tel-- by telephone in several recent meetings of the Board's subcommittee for dose reconstruction and site profile reviews, and of the working group of Board members, NIOSH representatives and S. Cohen & Associates representatives. The S. Cohen & Associates December 2005 detailed report on the Rocky Flats site profile addresses many of the problems that the Steelworkers have identified in the history of Rocky Flats' radiation monitoring record-keeping.

We have been advised, however, that S. Cohen &

Associates has only recently begun an in-depth review of the Steelworkers' petition itself. This independent review is important and it is unfortunate that it has commenced so late in the process. We do not see how this review can be completed before the Board's meeting scheduled for April 25 to 27 in Denver, Colorado.

Therefore we respectfully request that the Board defer action on the petition until S. Cohen & Associates has completed its review of the petition and until the working group and the subcommittee have provided their recommendations to the Board.

Thank you in advance for your prompt attention to this request. Sincerely, Mark Udall and Ken Salazar.

And we delivered this letter to you yesterday. Thank you very much, Dr. Ziemer and members of the Board.

DR. ZIEMER: Thank you, Mr. Hiller, and indeed this request will be before the Board tomorrow as we deliberate on this very subject, so we appreciate the input.

MR. HILLER: Thank you, sir.

DR. ZIEMER: One other comment --
MS. MINKS: Excuse -- yeah, sorry. It was actually suggested that I read the letter in that Senator Allard --
DR. ZIEMER: Yes.
MS. MINKS: -- wrote, so I'll just read that quickly. Again, it's from Senator Allard to Secretary Leavitt. It says (reading) Dear Secretary Leavitt, in March 2005 and in November 2005 I, along with my colleagues Senator Ken Salazar, Congressman Bob Beauprez and Congressman Mark Udall, contacted you concerning the Rocky Flats Special Exposure Cohort SEC petition that was filed by the Rocky Flats Steelworkers on February 15th, 2005. We encouraged your office to do all in its power to ensure an expeditious and fair consideration of the Rocky Flats SEC petition.
The intent of Congress when passing the Energy Employees Occupational Illness Compensation Program Act in 2000 was included -- which included SEC petitions, was to ensure that the men and women who put themselves in harm's way by working at Rocky Flats and other nuclear production sites had a clear and just process

for applying for appropriate financial and medical compensation provided under the law. The Rocky Flats SEC petition is an application for such compensation under this Act.

I support the efforts of NIOSH and OCAS to fairly and scientifically evaluate the Rocky Flats SEC petition. I was pleased to learn from my staff that many of the concerns regarding the Rocky Flats SEC petition and the site profile have been resolved in the past few months. However, at the same time it also appears that the ultimate progress of the Rocky Flats SEC petition has stagnated significantly. My office was advised -- initially advised that the Rocky Flats SEC petition would be placed before the Advisory Board at the January 2006 Board meeting. Then in December of last year my office was advised that the Board would not make a decision on the Rocky Flats SEC petition until the April 2006 Board meeting because of a number of outstanding concerns related to the petition and the Rocky Flats site profile. My office has now been advised the petition may not be taken up until the April Board meeting due to some outstanding concerns related to the

quality of data available.
I understand and appreciate the care, consideration and detail that must be taken into account when reviewing SEC petitions and site profiles. I also understand and believe that the only way to fairly evaluate SEC petitions is by using the best scientific knowledge and data available. This was a key component of the Act, and one which I fully support. If our best science is thwarted by incomplete data or data quality concerns, the intent of the Act is clear, the site SEC petition must be approved. Should the Advisory Board decide to table the Rocky Flats SEC petition until the June -- or until the next Board meeting, the review of the Rocky Flats SEC petition will be at least six months past what my office and the petitioners were advised. To the men and woman who have filed that petition and to the thousands more who knowingly or unknowingly risked their lives at Rocky Flats, the delay is unjustifiable, but understandable given the -- given the new ac-- new data that's looked at.
I encourage you to do everything in your power

to see that the Rocky Flats SEC petition is reviewed fairly and that a decision is made as expeditiously as possible. I believe your leadership is critical to this process. The men and women of Rocky Flats deserve and appreciate your support as this petition moves forward. If my office can be of any assistance to you or the Advisory Board as you review the petition, please do not hesitate to contact me. Thank you in advance for your assistance. Sincerely, Wayne Allard, United States Senator. And just to echo the concerns that Congressman Udall and Senator Salazar's office raise, our office too was contacted and we understand the request of the petitioners to delay the application, as well. Thank you.

DR. ZIEMER: Okay, thank you very much. I now will move to the sign-up sheet of individuals who've requested the opportunity to speak. I'll simply take them in the order that people have signed up. The first individual is Knut Ringen, and he is apparently prepared with PowerPointe slides. Knut.

MR. RINGEN: Yes, I don't want to waste any of your time -- or too much of your time.

DR. ZIEMER: Anyway, Knut is here from the Center for -- to Protect Worker Rights and -- here in Denver -- well, it's not in Denver. He's here in Denver. Okay, there we go.

MR. RINGEN: Well, thank you very much for letting me meeting with -- meet with you again. I've talked to you once before about our concerns, and I appreciate your holding these evening sessions, which we suggested that's a very useful thing for all of us.

Today I'm here representing the Center to Protect Workers' Rights -- that worked a little too well -- and I have a handout packet that I left in front of you that consists of four attachments that you can see here. I will also (sic) copies of this handout packet and the slides at the table behind -- in the back there if anybody wants them. I'm using the slides to try to organize myself as well as I can.

The Center to Protect Workers' Rights is the research arm of the Building and Construction Trades Department of AFL-CIO, and we represent the 15 international unions that cover the construction trades in the U.S. We are here as representatives of the claimants, and I want to

make clear that we have many, many interests with NIOSH and in this program.

First of all, together with NIOSH we operate, and have for 16 years, a very large construction research center in safety and health. We conduct work for DOL under a contract on the EEOICPA program. We manage Department of Energy-funded medical screening programs at this point in time at 15 different DOE sites, including -- we're just starting here at Rocky Flats. We have had a contract and we proposed more work with OCAS on issues related to dose construction -- dose reconstruction methods for construction workers.

We're not -- we're only here to speak for construction workers and their -- for the -- who are claimants, as well as their survivors. We can't claim to speak for any of the other kinds of workers, but probably many of the things that apply. We want to make clear our comments are about construction workers.

We also want to make clear that we support individual dose reconstruction where it can be done validly, fairly and timely -- and I'm

going to speak a fair amount about all three of those issues today. And we will help in any way we can to make the dose reconstruction program work.

Our concerns are the following: NIOSH agrees it doesn't have a valid dose reconstruction model for the vast majority of construction worker claimants. Nevertheless, it's managed to process what we think is somewhere between 700 and 1,500 construction worker dose reconstructions. As far as we know, these have not been audited for validity, and we don't think Sandy Cohen & Associates has the necessary expertise to adequately audit a dose reconstruction for construction workers.

NIOSH is sitting on about four or five -- 4,500 to 5,300 construction worker claims, and it's been sitting on many of them for more than four years, and we hear from those claimants regularly. The reason that they're sitting on them is that they don't have a valid method, as I mentioned before. And the reason that they don't have a valid method, in our opinion, is that this isn't a big priority to NIOSH. And although construction worker claimants are 30

percent of all of the current claimants, and at least 50 percent of potentially all claimants, this Board doesn't seem to give it a very high priority, either.

In December 2003 I first asked -- talked to you about this issue, and I want to give you a quick update on the major issues that we presented to you and where they're at at this time.

We asked for expedition of construction worker dose reconstructions. That's not happened. We asked NIOSH to provide us with data on the status of all those claimants who are specifically construction workers that are in their files. That has not happened. We asked NIOSH to develop replicable protocols for all of its work, including its site profiles. That has not happened. We asked NIOSH to develop a valid dose reconstruction method for construction workers, and that still has not happened. We asked NIOSH to produce construction-specific site profiles. That has not happened. And we asked NIOSH to fix the conflict of interest problem in its contractor, and only now it seems that it's getting ready

to do something about that, although I don't think nearly enough. So after two and a half years, we don't have a whole lot to show for the issues that we asked this Board and NIOSH to deal with at that time, and we think these are very critical issues for a large number of claimants.

There is no question that OCAS has a significant credibility problem among many of the claimants, which may or may not be valid, but we -- certainly in large part it's self-inflicted. I've included a letter -- we get them all the time from claimants. I included one that we just got last week in attachment four, which says (reading) NIOSH could have consulted the Psychic Friends Network or the Magic and the Ball -- I've never seen these programs, by the way -- for approval of claims with the same credibility as they did with their dose reconstruction.

Now that may be an unfair comment, but that's a very com-- fair com-- common type of comment that we get, and I think it arises out of problems that NIOSH has in three basic areas. One is the governance and organization of the

program. The second is the administration of the program. And the third is the science. I'm going to go through those things quickly. When NIOSH first established the program -- or within two years after it was -- came into being, it established a rule on dose reconstruction which we at that time felt was way too vague. One thing that we raised concern about from the start was that it didn't and refused to set a time limit of how long it was going to take to do a dose reconstruction. We said there has to be a period of time in which a claimant here can get its claim handled by you, and NIOSH would not set that date. And that's a big problem that we face right now. There are many other problems with the rule, and a lot of the problems I talk about go back to that rule.

The second thing that NIOSH did was to select a contractor that is rife with appearance and actual conflict of interest. There's no other way to put it. There's no reason to be polite about it, there's tons of conflict of interest in this program. And that became already clear after the first site profile was issued for

Savannah River, which I talked about in December of 2003. And I said there's clear conflict of interest, at least on part of one author of that document. We were shocked by that. But that conflict of interest is relatively minor compared to the documents that came afterwards at places like Hanford, where five or six of the main authors had very extensive conflict of interest.

Now I wouldn't come here and talk about this for the -- right now if we hadn't made these points previously. We made it with Larry Elliott and to NIOSH when this program was first established. We made the same comments when the rule was issued, first rule was issued. We made the same comments when NIOSH proposed to hire a single contractor to do its work. We said there was going to be problems with that. And we made it in presentations to this Board before. So we don't come at this new.

But there was one problem we'd never anticipated after this program was established, and that was the adversarial relationship that developed between OCAS and this Board,

particularly the first three or four years. That we hadn't expected, and I think has been problematic in the development of the program. Finally, you are now addressing the conflict of interest issue. That was only really as more and more pressure was placed on NIOSH to deal with it, and really only in the last month when a lot of this broke out in the news. And Larry Elliott at that time said it's a very difficult, complex dilemma that we face, according to at least several of the news reports that quoted. He said because the pool of available health physicists is so small. Now we don't agree with that. It's not -- the problem here is not the small number of health physicists. We think the problem is the contractual route that NIOSH chose in operating the program.

There are also problems of administration. NIOSH says it's been unable to deal with construction worker claims because of a lack of resources. Now I would challenge anyone to find any program in the history of occupational safety and health that has had more resources than this program. According to the

President's budget, OCAS receives a budget of $50 million per year. That doesn't include the budget for this Board, by the way. So far it's cost roughly $14,000 per dose reconstruction to complete one if you divide its budget with the dose reconstructions that's done. So far, at least in this year in January and February, NIOSH has done about one dose reconstruction per FTE in the program, or between its contractors per month. And for every dose reconstruction that results in a claim of $150,000 being paid to a claimant, NIOSH spends about $50,000 in all on dose reconstructions because only one in four claims results in an award. So there isn't a shortage of money or resources here. As near as we can tell, if we compare this to the medical screening programs that we conduct -- which also include doing site profiles, outreach to recruit people in, medical exams which Dr. DeHart among others have done many of, X-rays, lung function tests, lab tests, work history interviews, follow-up both in terms of medical care and in terms of claims -- we do all this for about $1,000 per participant. It would seem that NIOSH ought to

be able to manage with the money it has if it can spend $14,000 per dose reconstruction. So we see it not as an issue of resources, but it's really priorities and management that have left out the construction workers so far in NIOSH's program.

We've also identified a number of problems in science. First of all, we think that there is a general ingrained bias in health physics that consists of two basically held views. Anyone who's not been monitored could not have been exposed is something we hear commonly. And secondly, anyone working in an area not designated as a radiation area could not have been exposed and therefore doesn't need to be monitored. Both of these biases or views -- prevailing views, if you apply them, I think when they get applied to construction workers it leads people, both in this program and in the general health physics community, to conclude that construction workers -- they're really at low risk and therefore they shouldn't be much of a priority in this program, and that's why they've been left behind.

And I'm going to talk more about one specific

area that we've worked with NIOSH, and NIOSH agrees with, and that is -- and I want to make you aware of -- and the fundamental problem with construction workers is the enormous statistical variance that we have in exposure measures, something that you don't see in any other occupational groups. And it's absolutely critical to everything that's being done in this program when it involves these workers. And by construction workers I mean workers who do all kinds of stuff. Many people think construction workers only build new things, but at DOE most of them spend most of their time on maintenance, repair, renovation, cleanup and demolition work within the facilities themselves.

In 2005 CPWR agreed to assist NIOSH to develop a valid model to address construction worker dose reconstructions, and we pulled together this working group, which you can't see but it's very highly-qualified and I think many of you know a number of these industrial hygienists. There are industrial hygienists that have worked on the problem of trying to develop predictable models for construction

worker exposures to a variety of toxic substances, not necessarily radiation, however. The key issues that we agreed to work with NIOSH on was to look at are the NIOSH models to estimate radiation exposure valid where exposure data are missing or lacking, and are they appropriate for construction workers. Second thing, is the variance in exposure dose measurements for construction workers greater than the variance incorporated into those models that NIOSH currently uses in its dose reconstruction program. And the third, should the NIOSH prog-- models be amended in any way for construction workers, in light of what we know in terms of variance.

NIOSH asked us to focus on the Technical Information Bulletin 18 that had just come out, which deals with trying to develop a model to estimate internal dose, obviously a critical issue in terms of doing dose reconstruction, from external environmental dose -- try to extrapolate that. And within the NIOSH model, these are the sort of criteria that are used to -- to estimate internal dose for -- from -- from environmental measurements.

The concerns about NIOSH model that our industrial hygienists have had is particularly these three things. Is the breathing rate, how much workers breathe, valid in the NIOSH model. Is the maximum allowable concentration or annual limit intake rate valid that NIOSH uses since construction workers seem to have more episodic and more high peak, short term exposures. And finally, is the dose uncertainty distribution valid, given that construction workers experience such extreme variability.

Now I'm just going to show you a couple of examples. These are various places where some of these industrial hygiene professors have done measurements of construction workers. These are workers doing identical tasks under different circumstanc-- under similar circumstances, and yet you can see for each of these -- the boilermakers, which were doing welding, the manganese welding, hot work, which also involves weld-- welding, abrasive blasting and so on -- sand blasting and so on. You can see how wide the range of variation is in the exposure, or how -- what -- wide the exposure

range is, for tasks that are seemingly similar and should yield identical results every time -- or pretty identical. This is the kind of range that we're talking about, which is not unusual, but which you don't see anywhere else in occupational safety and health. And Steve Rappaport has looked at this extensively, concluded that when we look at construction workers at least we should use -- be using a geometric standard deviation of 4.34 to estimate the 95 percent confidence interval of the -- the -- of the range of exposure -- of the variance for the exposure. These are just some more of that.

Bob Herrick at Harvard did a study for us on asphalt fumes trying to figure out how you could create an ideal model to estimate -- to predict how -- how much of the conc-- exposures to asphalt fumes were actually there. And he found that the best they could do with a model was 40 percent -- estimate 40 percent of actual variance.

And John Dement at Duke University has done the same sort of thing based on screening per the data and radiation monitoring data from the DOE

sites, and has found pretty much the same kind of thing.

I'm going to skip through this stuff. It just shows that the -- the environmental dose for construction workers at Savannah River's -- tracks fairly closely production workers, but if you could see the site, when you look at between various construction trades and over time, there is enormous variability and spikes among the construction trades.

So out of this meeting and out of this working group, we thought we got a draft agreement with NIOSH, and we looked at first of all the question of whether it's valid. We think that the NIOSH model in general for dose reconstruction is in reasonable concordance with the model that it uses for other workers, although it's inappropriate to exclude respiratory cancers, and they need to make amendments to -- to three things, the breathing deposition, the MAC values and so on.

We agreed that the variance should be higher than what NIOSH uses in general. We agreed that with these modifications that are listed here, we felt NIOSH could go forward and

estimate internal dose for a large number of the construction workers it has in its files and move forward and close out some of these 4,500 cases that were sitting there. Although before all of this could be done, they would have to do some more validation research with regard to individual DOE sites and facilities. But we thought we had an agreement that that was where we're going to move forward; that they would apply this model with the modification that we have said, and where they weren't -- where they couldn't apply it, then the claimants would have to self-select into the Special Exposure Cohort field. That's the only way we thought we could get -- get these cases moved.

Now when I met yes-- I saw Larry Elliott here and Jim Neton yesterday, and they said they were reconsidering this because, first of all, OCAS has identified new sources of internal -- they've identified new sources of -- where there's lots of internal dose monitoring records for DOE construction workers across the DOE complex, apparently.

Now just because they have more internal dose

records doesn't mean that they can still use the same model that they have for others. They still have to amend it -- they haven't done that yet -- for the variance that we have among construction workers because there's going to be gaps in that -- in that monitoring records in very many cases, no matter what -- and they're going to have to extrapolate in one form or another from somewhere to fill in those gaps. And they have to take into account the variance that exists when they do that.

But Larry Elliott said something more -- else that I thought was very interested (sic). He said that OCAS intends to apply a zero false negative standard to its dose reconstructions, and it's the first time I've ever heard that. And the way he expressed it he said is that we're going to make sure that no claimant is denied a claim because the dose reconstruction was done in such a way that it gave a deficient result. So that's what I conclude is a zero false negative standard.

To run a program, I will just say in parentheses, in any health field that has zero negative or zero false negatives I think is

just about impossible, so I admire OCAS for undertaking this. But I'm very curious how this is going to happen. And I'm also very curious where this standard comes from because I've never seen any reference to it, and I don't see it existing in, again, the rule that NIOSH operates under.

But certainly if OCAS is going to apply this standard, this is the following that has to be done. There has to be an amendment to the rule somehow for this that we'll have a chance to look at, and it also has to do -- it also means that OCAS will have to operate with a level of specificity -- statistical specificity that's 100 percent and a negative predictive value that's equal to 100 percent, and the only way that it can do that, in my opinion, is to approve all dose reconstructions. Furthermore, if this is going to be the standard that's applied, then we will insist that this Board and SC-- SCA-- SCA -- Sandy Cohen needs to develop an evaluation model for predictive value like you talked about yesterday. We want to see specificity. We want to see sensitivity. We want to see positive

predictive value and negative predictive value in the whole program. We want to see that by DOE site and by type of claimant. Otherwise, you can't uphold this standard. It's nice to talk about it, but you got to -- if this is going to be the standard, then you've got to prove that you're living up to it.

More importantly, NIOSH had -- has had now five years to figure out the construction worker problem. This Board has had four years -- you've been in existence for four years -- to help figure out this construction problem, and we've not had anything figured out yet. Meanwhile, these claimants wait, either old, sick people with cancer or their survivors, they wait. And that is not right. That is not timely. That is not fair and it's not valid.

In conclusion, there are four thous-- I said there are 4,500 workers here -- sitting here. We don't have a model. NIOSH has performed dose reconstructions, as near as we can tell, on some construction workers without a valid model, and we think we should know what's happened with those. And to do that, we think Sandy Cohen needs better expertise on

construction worker science, exposure science in particular. And we urge this Board to make this a priority as it reviews the work of NIOSH. Thank you very much.

DR. ZIEMER: Thank you, Mr. Ringen. The next person on the list is George Berry. George, you can approach either the mike up here or the one in the back, whatever you're most comfortable with. Is George -- okay.

MR. BERRY: Hi, I'm George. Hello?

(Pause)

Good evening, members of the Board. My name's George Berry. I was a journeyman machinist at Rocky Flats Plant from '82 to '89, and I am a positive Part E claimant. Prior to that I was a D -- Part D under DOE. And I been waiting many, many years. This is getting ridiculous. I'm here to talk to you about a couple of things. There's so many things I want to touch base on, but it's just too lengthy.

I got to talk about altered documents and improper procedures that I saw. Some of it was lack of my knowledge, I agree, but a lot of it was pretty ambiguous readings. And I saw things anywhere from plus or minus 75 percent

to who knows what on my readings -- if that was plus or minus 75 percent, what good is my paperwork even reading, you know. That's like -- what? Things like that.

I distinctly remember two incidents. One was -- very possibly could have affected my health. I -- I'm -- very good chance I wouldn't have been here today if I wouldn't have been on the ball that day. I was in Building 777 doing a component I can't even discuss, and a -- following top secret documentation, and I followed it to the T. It was at a down-draft table. This component should not have been in a down-draft table; it should have been a in-glovebox situation. As soon as that component came to the end procedure of that machining process, it leaked, alarms, donned -- I donned my respirator immediately as soon as I could, in between time trying to tape up this component so it wouldn't leak any further. And at that time, then everybody came running to me.

I had no idea what was going on. I was just a young buck. It was 1983, I was like maybe 25, 30 years old. And I remember the radiation

monitor coming to me and I remember the radiation monitor's name. I don't know why, what, 20, 30 years ago, but I could tell you that man's name right now. I know there was a nasal smear taken, because you don't forget something being shoved up your nose and pulled back out. You know? Come on.

I tried to get copies of that through Jim, who is the president of the Local 8031 AFL-CIO Steelworkers, and was -- was -- wasn't -- was unable to get anything from him, and then he passed away on us and that's when Tony took over. And then I went to DOE, and no luck there. Not even the Cong-- Congressman could even get any kind of movement on that.

So you know, if I got cancer, how would NIOSH reconstruct a dose that -- that they don't even know how much I received and what the units were at the time of the dose? Are they going -- are they going to ignore this incident completely, or just stick it underneath the carpet just like, you know. This was a very controlled component, and you can't tell me that they didn't know what was going on. Like I'm going to give them at least that much --

you know, procedure that they would follow that they would know, just like -- I hope.
Anyway, you know, they don't even know what types -- type isotopes I was machining on that component. They don't know what area of the complex I -- I was in. They have no -- no documentation of -- of the incident that happened. How -- how -- how could you guys believe Joe Blow, you know. You -- you -- you're scientists and you're -- and -- and who knows what else in -- in very detailed, specific formats you have to follow. I don't blame you a bit. We got to come up with this stuff.
This is ridiculous. This is not -- not acceptable. And I just can't believe that we would fight for our country in this way and be scoffed at and played games with and everything else, and it just keeps going on and on and on and -- oh, then, by the way -- gee, we're going to go from DOE to DOL. But in between time you guys get to wait and die. It's a bunch of crap. I'm sorry, it's a bunch of crap. You -- you would not believe how many things are wrong with me, and I just keep on plugging and keep

on plugging 'cause I'm not going to let the bastards get me. And I'm not saying you're bastards. I'm just saying I'm not going to let the bastards get me, you know? I'm going to keep on plugging. It's -- it's made me really strong, but it's also doppelganging (sic) on me. It's snowballing on me, and sooner or later the Lord's not going to keep me alive any longer. And I don't know if I want to stay alive any longer. It's ridiculous.

I had an incident happen to me in Building 776 and I gave this lady here the documentation, and I believe there was a -- probably a -- oh, a begruntled (sic) worker that was jealous of me or who knows what, but I was in the -- in the -- 776 doing a job and the pendant came around. I took my part out of the pendant, and underneath that part was a jagged piece of metal. If I wouldn't have been on the ball that day, concentrating 100 percent, I would have been dead right now. How could they allow something like that to even get in an area like that. That is flat out murder, let alone sabotage to Uncle Sam. I don't understand.

I was a young kid then, and sure, we have our

times, but I never horse-played and I never put anybody else's life in danger, and I had to deal with this.

Well, at that -- by that time I said heck with this, I'm not believing nobody and I'm not trusting anybody. So I went and I got on that phone and I called a DOE representative. I says you get your butt down here right now, I got something to show you. Half hour down the road, boom, he was down. He was right down there and I says come here with me, took him over to the glovebox and showed him this pendant that holds onto -- that -- that goes around in a conveyor line that you take your parts out of, and it was a stainless steel container with a jagged piece of metal sticking out of it whilst having a piece of Pu sticking in there that I was supposed to grab out. And gee, by chance we don't have any documentation for that. I don't think so. I don't think so. It's there. They're not that stupid.

I'm glad I didn't see it or read it because I probably would have killed the person that did it to me, you know, and there's a good chance that maybe that's why they did that. Which I'm

kind of glad, but it's like I hope that person is still alive and still thinking about what he tried to do to me, and God help him -- literally, God help him, 'cause that's the only person in this whole universe that's going to help that man -- or woman.

Notice on this documentation that I give that girl, there's the documentation down there stating my bioassay reports on termination paperwork that - and -- there's a yellow line crossed across there and it shows an erasure of I believe -- I'm not sure if it was from the hand or forearm or what, but it shows an erasure and a -- and a rewrite, and it showed U-235. Well, that's D-38, okay. Who's to say that that wasn't U-233, which is very, very hot. It's almost so hot it should be in a glovebox. I machined it. I know. That stuff was so screaming hot you could stare at it and it would spark at you, and it was not even in the glovebox in a -- in another building, so I -- I know there was things going on up there that we didn't even know about. And I was too stupid and too naive to understand. That's not a quote. I'm telling you what I saw. I'm

saying oh, my God.
I was told to put my badge inside my pocket on certain jobs that I ran because oh, they were afraid I might get the badge contaminated or dirty. God forbid that. To heck with my body or my bioassay or my nasal smear. Put your badge in there. It'll be safe.
Can NIO-- can NIOSH reconstruct dose for these things? I don't think so. If I got cancer now I wouldn't trust the dose that was recommend-- that was reconstructed right. How would they know what I was exposed to, what building I was in, what machine tool I was operating, what radionuclide and elements slash -- brain fart, sorry -- elements and --
UNIDENTIFIED: Isotopes.
MR. BERRY: -- isotopes, thank you, were combined in these parts? You have to have certain specifics to come up with a certain answer. It doesn't take a rocket scientist.
I worked in all -- all the stuff I did over there was in special orders. I don't even know all what -- what it was. It was elements that I've never heard of, and never will ever hear of, you know. So just remember, the facility

was so contaminated that the FBI came up there and raided it and -- boom -- five, six years, it's gone. Why? Shut down and dismantled, boom -- 5,000, 6,000-person complex, 200-some,000 acres and all of a sudden this place disappears? I'm sorry, I wasn't born yesterday.

What other nuclear weapons facilities has this happened to? Gee, I don't know, Lawrence Livermore? No, it's still cruising. Tennessee? Kentucky? All those, they're still cruising, doing great. Ain't nothing been torn down, pulled away from there. They're not hiding nothing. So it looks to me -- I'm just a country bumpkin right now, but it looks to me like they were hiding something and they didn't want someone to find out.

I guess that's it. I'm sorry to have been so blunt to you, and sometimes I was real arrogant, but I'm dying. You guys got to get this crap straightened out, man. This ain't going to work much longer. I'm on my last legs.

DR. ZIEMER: We appreciate your comments, George. Thank you.

MR. BERRY: Thank you very much.

DR. ZIEMER: Now we have Kay Barker. Is Kay here? Yes, please.

MS. BARKER: Good evening, Dr. Ziemer and members of the Board. I'm Kay Barker, and I'd like to talk to you about the accuracy of dose reconstruction.

My late husband, Lawrence Barker, worked at Rocky Flats from December 1, 1958 to February 28, 1986. He died September 2nd, 1994 after two years of hell from colon cancer.

I requested the worksheets from NIOSH, and Mr. Sundin was kind enough to send me a copy of all the worksheets NIOSH used to reconstruct dose. I know I'm not the most educated woman, but I can certainly read dates. I was able to pick out dosage assigned for dates that Lawrence never worked at Rocky Flats. To remind you, he worked from December 1, 1958 to February 28, 1986.

In the booklet before you, you will notice that Lawrence has values assigned for years 1956 and 1957, when he did not begin work till December 1, 1958. He was dying due to his colon cancer in 1993. How can NIOSH say their dose

reconstruction for Rocky Flats claimants is accurate when they can't get the dates of employment correct? You call this data reliability?

Mine is not the only case. I have a dose reconstruction from another claimant, which is also 'cluded in the booklet. He worked at Rocky Flats from May 4th, 1981 to March 31st, 1990. You will notice that the year 1980 is listed on page 3 of his information, and that is towards the back of the booklet. Granted, no dose is assigned for 1980, but you will also notice no dose was assigned for 1981, either. But the mere fact that 1980 is listed, in my mind, shows that NIOSH is not accurately reconstructing dose.

Additionally, even the NDRP project included values for neutron dose for 1956 in my husband's reconstruction. That was a full two years before he started working at Rocky Flats. From what I have heard listening to the meetings, the NDRP is given a lot of weight in reconstructing dose for the early years. It doesn't seem to me that it is accurate, either.

I don't accept any data that Rocky Flats has

for the workers. In my booklet I have the health scientist data system urinalis (sic) detail, with no values whatsoever for any radionuclide. I find it impossible to believe that a UA was not reported or taken for the years 1968 through 1971, but were available from 1975 through 1985. And this is not an isolated case.

I have an e-mail in my booklet from Jack Wedding, a supervisor of my late husband, that states (reading) I notice that the dates of 1964 through 1969 were omitted. Those missing records contained four different times I had to have my body counted. Also the cleansing I had after the 1965 fire while in the hospital. In fact, all records containing information about my contamination on that date are not available.

Jack couldn't make it to this meeting due to his frail health.

I also find it hard to believe that my deceased husband's first urinalis (sic) value was not until 1975. He worked in hot areas for at least three years. I would think that considering the lack of safety protocol, the

early years, that he would have had some kind of reading for his UA. All I have is zeroes, especially his early years when he was a clerk/packer.

From day one of my claim I've always said that Lawrence was hot during his first three years at Rocky Flats while working as a clerk/packer. Lawrence even reminded me of this on his deathbed. He wouldn't go into any details about it, only to say that the records were accidentally on purpose destroyed at the Federal Center here in Denver, Colorado. The only incident report that NIOSH has is the health physics report of involvement dated September 26, 1962. That's also in your booklet. The report states that Lawrence received a cut on the anterior surface, medial area, of his second finger, left hand, on a piece of glass in Building 901. But there is no Building 901 in the site profile. Building 910 is listed, but wasn't built until 1977. Building 991, however, is another story. It is a hot building, and was built in 1952. Did NIOSH use 910 or 991 in their calculation? NIOSH claims this is data reliability?

You should also be made aware that Lawrence and Wally Gulden were instructed by management to leave their badges in the rack or desk drawer while doing their time studies and audits in hot areas. How's that for data reliability? From what I've learned from other coworkers doing the time studies and audits, you were not issued protective clothing while doing work in hot areas. I have an excerpt from Jackie Beavers*' letter that Terrie Barrie will be presenting that she has in her handout, who is unable to attend this meeting due to health problems. Film badges were stored on a dosimeter storage rack. Dosimetry became suspicious of high doses received by production workers. These production workers were accused of purposely over-exposing their badges by placing them in gloveboxes. If the badge exceeded the authorized limit for the period, production employees would be disciplined. In addition, they would not be eligible for overtime. As a result, some of the operators didn't wear their dosimeters all the time, or they'd put the dosimeter in the back pocket of their coveralls in order to avoid disciplinary

actions.
There were periods of time when individuals wore dosimeters, but the quarterly dosimeters indicated no current data available, NCDA. It is uncertain if the dose received during the period of time represented by NCDA was recorded in the dosimetry record. Contaminated dosimeters were often replaced with new dosimeters.
Two chemical operators with many years experience in Building 771 process area left their positions to work in the dosimetry department. The dosimetry person training them told them if badges returned readings higher than a certain number they were instructed to give the operator zero counts, or no current data available counts. Is this data reliability?
Also the counts were returned on a long dot matrix sheet and operators were often required to initial the counts as a sign of acceptance of the counts in order to receive their paychecks. All zero readings and no current data available readings had to be accepted by the operators, even when they knew better, and

initialed in order to receive a paycheck. One woman resigned her position from Rocky Flats after many years in an extremely hot process, such as molten salts and et cetera. She kept her badge with her at home and requested dosimetry personnel come to her home to pick up the badge. It took many months of dosimetry personnel to come to her home to pick up the badge, yet she received counts for the very same badge that was still in her possession at home. You call this data reliability?

I would also like to bring to your attention the fact that Lawrence was a machinist during the 1970 strike. No dose was assigned for that period. Where is the data reliability here?

NIOSH shows that Lawrence had 316 incidences of exposure, with 15 incidents taking place in years before he was employed at Rocky Flats. Now is that data reliability?

I know you can't think of these claimants as humans but only as cases, but I had to include in Dr. Ziemer's booklet, at the very end, two photos of my late husband, Lawrence Barker. The first photo is of a healthy Lawrence Barker. The second photo is of Lawrence in the

final stages of his fight against colon cancer. I wanted you to be able to put a face of a dying employee in your mind while making your decision on the SEC petition.

I would like to say that Terrie Barrie informed me and SC&A, as well as Mr. Sundin, about all the dosage given to Lawrence during his years he didn't work at Rocky Flats. Mr. Sundin informed Terrie that the claimant should contact NIOSH and explain in detail what that person had. Terrie did contact me, and I informed her that I would not call NIOSH to discuss this as I do not trust them. When I can find all these dates with dosages that Lawrence didn't work at Rocky Flats, how can I believe that NIOSH can reconstruct any dose accurately? If I can find problems of false data, how do we know that other claimants don't have the same problem? My claim has even gone through NIOSH twice, as it was -- as it just finished a rework in October of 2005. If they can't find this problem the first time through, you certainly would have thought it would have been noticed the second time. But no, it wasn't. What else has NIOSH done wrong on this

claim? I hate to think of how many other claims are out there with inaccurate dates and dosages, and to think NIOSH says they have data reliability.

In all the meetings I've been listening to I've never heard Karin Jessen say a word, but instead Roger Falk is always addressed. Why?

In conclusion, I question the validity of anything in my late husband's dose reconstruction. I respectfully request that you consider this information that I have documented for you as an example of why you must grant the Rocky Flats SEC petition. I think all of (sic) the people who are dying daily, just waiting for your decision.

Thank you.

DR. ZIEMER: Thank you very much, Kay, for sharing that with us. And we also now have Terrie Barrie.

MS. BARRIE: Good evening, Dr. Ziemer and members of the Board. My name is Terrie Barrie and I'm a founding member of the Alliance of Nuclear Worker Advocacy Groups and advocate for some of the Rocky Flats claimants. I am here tonight to voice my disagreement with NIOSH's

opinion that they can reconstruct dose of the Rocky Flats claims.

First I must state that I feel that NIOSH could not have handled this SEC petition in a more deplorable manner. They found every way to circumvent Congressional intent and have the evaluation report delivered to you, the Board, within the 180 days. The report was issued only 20 days before this meeting, and it placed additional pressure on the Board and its contractor, Sanford Cohen & Associates.

Data integrity is the key issue. Yes, NIOSH may possess the scientific expertise to reconstruct dose, but that's assuming that all of the monitoring data was correct and available to reconstruct the events as they occurred. But if they began with faulty data, the end result will be in error. The maxim garbage in/garbage out applies to Rocky Flats. The information you'll hear tonight from the audience I hope will convince you to ignore NIOSH's assertions and grant SEC status to the Rocky Flats facility.

I believe that the site profile for Rocky Flats is flawed. There's a serious conflict of

interest with the internal dose Technical Bulletin Document. On December 3rd, 2003 I notified Mr. Larry Elliott of this conflict. Roger Falk, a member of the Oak Ridge Associated Universities, was -- which is charged with developing the site profile, was listed at that time the author of the TBD. Mr. Falk was the Rocky Flats internal dosimetry program administrator. He was also an expert witness for Rockwell International in my husband's workers compensation claim. It was not only upsetting that Mr. Falk testified against the claim, but what he testified to. I do not believe that the TBD is accurately or a trustworthy account of the internal dose that the Rocky Flats workers received.

I understand now that Mr. Falk is cited as a site expert, but -- and -- and also for both the TBD and the evaluation report, but he is the O-- right -- excuse me, I'm sorry about that. He -- he's cited as the site expert, but Karin Jensen (sic) is listed as the author. However, in all the meetings that I've been listening in to, the teleconferences, it's Roger Falk that is answering the questions, not

this Ms. Jensen. Is there a face behind this name? Who actually did the writing for the evaluation report and the SE-- and the site profile?

I've received no response from Mr. Elliott. I would have happily given him -- when I advised him of this conflict. I would have happily given him the workers compensation claim number to NIO-- so NIOSH could request a copy of the transcript and verify my assertions. Because Mr. Elliott did not contact me, I never felt comfortable offering NIOSH additional information concerning the site.

It appears the same philosophy of ignoring offered information is still prevalent with the SEC process for the Rocky Flats petitioners. Over 20 people submitted affidavits to Local 8031 to support the petition. Three additional claimants submitted testimony on behalf of the non-production workers. Not one of them has been interviewed by NIOSH. Yet according to the Y-12 evaluation, NIOSH conducted several interviews with numerous Y-12 employees.

The site profile's also inaccurate when it comes to Building 886. This was a criticality

lab. The site profile states simply, and I quote, short-lived fission products were produced and none were indicated as having been released to the work or outdoor environment, end quote. Maybe the short-lived products didn't enter the environments, but uranium and plutonium did. I have a handout over there, too, and in that is a -- an example from the e-book called "History of a Criticality Laboratory" written by Bob Roth*, senior experimenter, and he asserts that there was 39 anomalous events in over 30 years at that lab, two of which involved worker contamination. Because of this, I question the accuracy of the site profile for the other buildings.

I also question NIOSH's consistency in evaluating SEC petitions. This arose in my mind when I listened in on the April 12th Board working group teleconference. I remember hearing the question raised about thorium being present at Rocky Flats. Since a transcript of that teleconference has not been posted yet to the web site, my recollection may be faulty, so please feel free to correct me. I remember that NIOSH stated that they could not

reconstruct dose for Y-12 for thorium because they did not have enough data. I am not even -- but they could reconstruct dose for Rocky Flats workers because they can utilize the gross alpha bioassay measurements.

I am not even close to being a scientist, but if NIOSH cannot reconstruct dose for employees who were exposed to thorium at Y-12, how could they possibly determine they can for Rocky Flats?

NIOSH stated on page 21 of their report that zero results were treated as zeroes because no better information was available. It is incomprehensible to me that a worker would have zero exposure while working at the Flats. In fact, page 14 of the evaluation report states that after the May 1969 fire that Building 771, 776 and 777 were grossly contaminated with plutonium. Kay Barker has stated that her husband's and his boss's records show a gap for that year. I have another claimant whose records also show a gap for 1969. How is that possible that there is no recorded dose? Were these records destroyed, as some have alleged?

This program is supposed to be claimant

friendly. NIOSH should have concluded that since there is no better information to explain the zeroes that they cannot reconstruct dose, instead of assuming that there was no dose received by the workers.

A few claimants could not tonight -- could not attend tonight's session and asked if I would read their letters into the record. Time will not allow me to read them in their entirety, but I would like to read some excerpts. The first is from Jackie Brever*, who holds a master's degree in environmental science, and Ron Avery. They testified under oath to these facts, either before the Rocky Flats grand jury or the recent Cook Landowner lawsuit, and I quote, (reading) there was a campaign where americium-241 was purified and sold. Operators who were very good at this operation were rarely rotated from the process and received zero counts from their dosimetry badges, and were told by the dosimetry personnel that high counts were impossible for buildings on the hot side. Therefore operators started each new year with zero counts from the dosimetry department. Background was raised on a

constant basis in all sampling and counting areas until the numbers came back right. There were several times when the Rocky Flats personnel had to go to a person's home to decontaminate the home, the belongings in the home and his or her family. End quote.

I have an e-mail in the handout dated July 25th, 2005 from a woman who was helping her husband with his late father's claim. She substantiates the last quote from Ms. Brever, and that e-mail states (reading) they came to the home in protective suits and Geiger counters. My husband says they went through every room, the cars, the garage, and also used Geiger counters on not only his dad, but his mom, his little brother and himself. How does NIOSH plan to reconstruct dose in these instances?

Finally I would like to raise an issue that does not have a direct bearing on the SEC petition, but does affect every claimant. Section 7.5.1.7 of the evaluation report states that DOL has considered -- DOL also considers the exposure of a worker to the combination of toxic chemicals and radiation under Part E of

EEOICPA, end quote. DOL has in fact set the probability of causation for the radiogenic cancers at the same standard as NIOSH; that is, greater than 50 percent. Mr. Peter Turcic in his April 11th letter states, and I quote, NIOSH developed and maintains computerized set of cancer risk models used by DOL to calculate the statistical probability that the covered employee's cancer was at least as likely as not caused by exposure to ionizing radiation. At least as likely as not. But the law for Part E claims sets a different and, in (inaudible)'s opinion, lower standard for Part B claims. The law sets the probability of causation for E claims, and I quote, it is least at likely as not (sic) that the exposure to a toxic substance at the Department of Energy facility was a significant factor in aggravating, contributing to or causing the illness.
Mr. Turcic's letter continues, and I quote, HHS regulations also provide for NIOSH to add, modify or replace cancer risk models as necessary on the basis of new evidence and/or improved scientific understanding. DOL encourages claimants to contact NIOSH regarding

its cancer risk models and the rule-making process that guides the POC determinations. End quote.

So what I see here are the two principal agencies telling the claimants that the other is responsible for setting the standard for cancer claims under E. It would be very helpful if the Board tomorrow would ask NIOSH and DOL to clarify this during their program update session.

I want to thank you for your time, hard work and consideration. I also want to express my gratitude to Tony DeMaiori and all those who helped submit the petition to the Board. Thank you.

DR. ZIEMER: Thank you very much. Next I have Diane Jensen -- I believe it's Jensen. Is it Diane Jensen? Thank you.

MS. JENSEN: Good evening. I'll begin by apologizing 'cause I had not planned on speaking this evening. When I came in to talk to a representative today about my case, I heard that NIOSH is recommending against special cohort status for Rocky Flats employees, the logic being -- or their lack of

support is based on their ability to perform dose reconstructions for former Rocky Flats workers. My concern is that the records used for the dose reconstruction are inaccurate, incomplete and blatantly fraudulent.

Readings in past history for myself came back with dose reports of zeroes in times when I worked in high rad areas such as inside a vault for an entire two-week periods during inventories. In reality, my actual reports have come back to me saying no data available, but were as zeroes on my dose reconstruction. At the time I questioned this, this was explained to me that the badges were sometimes too dark to read due to high doses. They still settled with looking at them as zeroes. And I was supposed to feel better that they used a 39, because 40 was the cutoff for too low to read, so I should be happy they credited me with 39. At other times dosimeters were worn beneath our lead aprons so they did not capture our body dose.

Additionally, working in plutonium production area meant 360-degree exposure, not front torsal (sic) with the badge located on my

lapel. I was surrounded by plutonium production processing lines.

I'd also like to address the issue of incomplete. I received radiation dose for more than 20 years. The first eight years were as a production floor, the remaining years were as technical support. As technical support I was considered admin or office personnel. Badges were pulled from the office personnel, even though our offices were in the production buildings. My office wall was adjacent to an abandoned americium line. When the security station was installed in Building 771, metal shielding had to be set up to prevent the Pu detector alarms from going off in the surrounding area. My desk was located against that wall.

Area monitoring records for the year 2000 list the adjusted dose as 826 millirem per year -- note that this is adjusted -- for 2,000 work hours per year. For those of us who were salaried and working 45-plus hours per week, this figure is far too low. And though the figure is more than 800 percent higher than the dose assigned to an office worker, office

workers were still assumed to have a dose of less than 100 millirem, and they felt safe pulling our dosimeter badges.

I feel they're also fraudulent. In addition to being incomplete, inaccurate, the numbers were manipulated to meet the corporate bonus structure. Bonuses were realized by reducing the number of people in the dosimetry program, even though the maintenance shops and offices were known to have doses as high as 2,844 millirem per year -- and that's the electric shop in 371 -- dosimeters were still pulled from office personnel who worked in those areas.

Additionally, rooms such as the men's and women's restrooms were known to have doses nearing 300 millirem adjusted dose per year. These numbers were again adjusted to reflect one-sixteenth of a work day, because people only spend ten minutes twice a day in a restroom.

My office was adjacent to the locker room for several years. High level drum storage was immediately below my office. And when it became known that the area had a high dose,

dosimetry badges were to be placed in my office to -- to avoid getting high readings from these badges, the badges were placed midway in the reporting period, and moved midway in the next reporting period. Those records reflect only one-half of the actual dose received per pay period.

Due to the bonus structure of rewarding reduced doses, multiple tactics such as reporting half-period doses as the actual period dose, adjusting doses to reflect minimum time period of occupancy, and disregarding high doses as false or unreportable were methods used to obtain bonuses. The reward structure destroyed the accuracy of the dose reporting system. And I do want to note that people talk about the old records being inaccurate. I'm talking about things that happened in 2000 and after. NIOSH's position that they can accurately reconstruct employee doses with this faulty information cannot be logically supported. This position is unfair to employees who received substantial doses many times higher than the recorded dose.

And I'd like to thank you for hearing us this

evening.

DR. ZIEMER: Thank you very much. Dennis -- is it Rowan?

MR. ROMERO: Romero.

DR. ZIEMER: Romero, okay. Hard to read. Thank you.

MR. ROMERO: My name's Dennis Romero. I worked at Rocky Flats for 18 years. I started out as a production loader in 444 doing BE, uranium, titanium, silver, gold on the parts. Times we'd be back in the area -- in the old days they used to eat back there in beryllium process area. They'd smoke back there, do anything you did on the outdoors in the back area, and then in time they changed the rule. There was days that we'd have air reversals in the building -- just the fans would go in reverse, and you'd have an alarm for everybody to evacuate the back area, and you'd have dust settling out of the building -- BE? Who knows. Maybe take you a half-hour, 45 minutes to get past the step-off pad, and meantime you're breathing this air to get past the step-off pad to get out to the cold area. That went on constantly out there for beryllium.

Then I got moved to Building 779, became an RCT, did that for 12 years. We started doing D&D work in 779. Everything was procedurally driven during production days and then we went D&D. It was procedurally driven in the beginning to follow certain guidelines on how we dismantle boxes, how we dismantle piping, and if it wasn't right we'd shut the job down and we'd elevate the job to better PPE, better respiratory protection, and the job would go on. And based off DAC levels, divide their concentrations of plutonium in the air, that would determine what protections we would have as far as respirators. An (inaudible) respirator, which is 50 DAC, was our protection factor, or 1,000 for supplied air or PAPRs. When we exceeded those numbers, the jobs would stop. We would evaluate -- do we need to upgrade our protection factors to a higher protection factor respirator or supplied breathing air.

As things turned out, because we couldn't keep the DAC levels down we would do supplied breathing air in tents -- which was, to me, the best way to -- D&D ability. You got outside

air, supplying air to a man to do work in a high DAC atmosphere. But it takes a long time to get a person in and out of supplied breathing air. It's time-consuming. It's hard on the worker. They deemed that PAPRs, which is a Powered Air Purifying Respirator with a motor that pushes air through the canister, gives you 1,000 protection factor, which they felt we could do the job in that and still be safe. If it hit 1,000, we would stop work and try to evaluate how we can keep the DAC levels down.

But in time, because you couldn't keep the DAC levels down, they started tak-- changing the protection factors. Staying being 1,000, and our limit was 1,000 on-site for PAPRs protection factors, they felt that at 1,000 DAC we was protected. But then they started exceeding and go to 10,000 DAC, 100,000 DAC, even up to a million DAC. How much of that's getting through the respirator? Who knows. There's times the workers would wear that respirator for eight hours. He'd come out sweaty, canisters sweaty, saturated with sweat. Everybody knows the efficiency of the canister

-- or the respirator drops because it's wet. What's the efficiency of the respirator now and is he breathing in? Management wouldn't do nothing about it.

We used to do PIF, protection -- well, potential intake factor limits where if we exceeded the protection factor they would do nasal/mouths on people. They would do bioassay. They would do fecal. If it got high enough, they would do body counts to see what this person was getting into it. It takes time. It takes money. You've got to shut a job down. Got to the point -- they weren't doing PIF, potential intake factor, worksheets. They weren't doing those because they didn't want to know what the levels were.

The DAC levels were exceeded. They knew it; they didn't care. They didn't make people do bioassay or fecal. What's these people's -- breathing in? The dosimeter's not going to show you that information. And that went on constantly.

Towards the end I got into doing final survey on 771, which you know is the most contaminated building on site. They would deem -- the rad

engineers would deem certain areas to be cold. Like this room, they'd say this room is -- certain areas are for -- are cold. As an RCT we had to go do final survey on it, which is the direct frisk of the building so we could release the building so they could tear it down. Your black line there, we'll say that's a rad area. Workers are in there working in respirators. Rad engineer deemed us out here 'cause we wasn't affected by that job, we didn't need no dosimeters. We didn't need respirators. But those men in that area had cams, they had air samplers, respirators, PPE. Cams would go off -- evacuate the area. We're over here working. Of course we'd have to evacuate, but what was we exposed to? We didn't have respirators on. We didn't have dosimeters. And the areas they was working on at that time was the infinity room. If you know anything about the infinity room, that was a very highly contaminated room. They were cutting up the concrete floor from the infinity room, which was an area -- million dpm. But because we wasn't part of that job, we wasn't required to have any of this protection.

Where's your information? It does not exist. The plant is closed. It's gone. They say it's cold. The place is not safe. There's still highly contaminated areas out there. The public is at risk now, besides the workers that were there. But now the public's going to be at risk because that place is going to reach up and bite somebody in the butt down the future because it's still very highly contaminated, and something needs to be done about it and the public needs to know.

DR. ZIEMER: Thank you, Dennis. Then Richard Ostrom. Richard.

MR. OSTROM: I didn't come prepared with any paper to read from, so I'm just going to give you a few of exper-- experiences that I had. I was an assembler in Building 707 and 776, 777 between 1982 and 1992. The experiences I want to relate, it won't take very long to do so, but it verifies what has already been discussed.

When I first started there the dosimeter badge was supposed to be worn on the top of -- of your chest, right about in here (indicating). And then when we wore our lead vest, then we

were supposed to be putting that dosimeter badge behind the vest in order to protect it from picking up more count. Later on down the road we wound up -- we had to put a vest in front and a vest behind because we're getting blasted so much from the radiation.

That idea went away because somebody came up with the idea that now we have that radiation bouncing between two lead vests and we're going to keep it right in here (indicating).

In summation to all this, I after a while just got to feeling like a lab rat, and that's pretty much all I can say about it. Thank you very much. I appreciate you --

DR. ZIEMER: Thank you very much. I'd like to call on Michelle -- I think it's -- I'm having trouble reading the last name -- R-o-b --

MS. DOBROVOLNY: It's Dobrovolny.

DR. ZIEMER: Okay.

MS. DOBROVOLNY: Michelle.

DR. ZIEMER: Okay, Michelle. Thank you.

MS. DOBROVOLNY: My name is Michelle Dobrovolny and I appreciate you sticking me in here. I actually am here against doctor's orders. I have pneumonia for the third time. But I am a

Rocky Flats employee and I am sick. And I did have a speech written and I've decided just to go from the hip because I've heard a lot of people speak here today and I think they've spoken very well, and they've spoken for the people and the claimants.

I have fought for six times to get my claim through. I'm on my seventh currently. Just because I haven't been diagnosed with cancer, even though I have the condition, I am not entitled. But yet Rocky Flats deemed me disabled. I'm not entitled to Department of Lab-- workmen's compensation. I live on $1,400 a month and raise three teenaged sons. That's not how I looked for my life at the age of 41 years, and it is a very difficult thing to fight against a corporation and a company who continually (inaudible) you down.

I've watched five family members die from Rocky Flats of cancer. I have one right now, a cousin, who is in bed dying, expected not to make it to the end of the week. I had a father-in-law that I nursed to death, lung cancer. And their families are still fighting for the compensation package. It's not right.

You guys hold a lot of power in your hands for our lives, and I hope that you take into consideration that our lives are valuable and they're important. And they -- we deserve to live each and every day to the best of our ability with what assistance we can. I was exposed out there. I was in administration. I was in hot areas. I know what this young lady was speaking about -- dosimetry, but my readings come back zero. I worked -- I was salaried, worked sometimes 60 hours a week, in and out of the hot areas. But because I was considered administration, I wasn't given the same dosimetry rights as the other workers who worked with the plutonium. But I'm sick. I don't -- my life expectancy is maybe nine to ten years, and I'm 41 years of age. What were you guys doing at the age of 41? Were you looking towards your death? Think about it. Thank you.

DR. ZIEMER: Thank you, Michelle. We thank you for coming under very difficult circumstances indeed.

Judy Padaya -- Padeyea --

MS. PADILLA: Padilla.

DR. ZIEMER: -- Padilla.

MS. PADILLA: Good evening. My name is Judy Padilla. I'm nervous, sorry. I just have one question, and it regards the February 18th, 2006 article that was in the *Rocky Mountain News*, and it says (reading) Program for sick nuclear workers targeted for cut.

It says (reading) The Bush administration has proposed cutting $686 million from the program to aid Rocky Flats and other nuclear weapons plant workers who were sickened on the job by radiation and toxic chemicals. That proposal has U.S. Representative Mark Udall and Senator Ken Salazar of Colorado worried that thousands of people who put their lives on the line to build nuclear weapons will be left out in the cold for lack of funds. This amount represents 44 percent of the total budget.

And I would just like to know from the Board your comment, please.

DR. ZIEMER: To my knowledge, that proposal has not gone anywhere in Congress, but I -- I'm -- I can't say beyond that. I don't know where it is exactly. I've heard the same thing. We have no -- I don't think we have any direct

information on it more -- I've seen the news articles. I'm not aware that it's going anywhere. Can anyone comment? I don't believe it has occurred and -- it certainly hasn't occurred. Maybe some of the Congressional people can explain where that is.

MR. HILLER: The reference in the article is to a discussion between the Office of Management and Budget and the Department of Labor, and we are watching that closely. There are many members of Congress from both parties, both in the House and the Senate, who are very upset by that proposal. I -- I -- we haven't seen an effort yet to implement that -- that proposal, but we're watching closely. There -- there's been one hearing that has been conducted in the House of Representatives. There has been I think a suggestion that there may be another hearing. All I can tell you is that there are a lot of people watching who are strongly opposed to that and you'll hear a lot more if -- if there is any effort to move that forward.

DR. ZIEMER: I suspect we'll all be relying on our Congressional people to -- to handle that issue.

MS. PADILLA: The article continues, (reading) Two Colorado members of Congress say they fear the administration intends to implement the proposed budget cut by denying a petition by Rocky Flats workers seeking to grandfather into the program everyone with certain cancers. That is applicable to our proposal that we get the cohort status.

It further says (reading) The compensation law allows for such petitions to be approved when radiation records at a particular site are so sketchy that workers can't possibly prove a connection to their illness.

I think that is so appropriate to this meeting. Thank you.

DR. ZIEMER: Thank you. A.W. I'm not going to try to pronounce the last name; I'm having a hard time reading it. I figure A.W. will work. Right?

MR. DEMAIORI: Absolutely. Good evening, Dr. Ziemer and members of the Board. My name's Anthony William DeMaiori. Everybody knows me as Tony DeMaiori. I'm the petitioner on behalf of the United Steelworkers. I'm the ex-president of Local 8031, represented the

nuclear weapons workers at the former Rocky Flats site.

I'm here tonight not to give a speech, that's -- or even a presentation, so I'm going to let everybody down. The United Steelworkers have been invited to make their presentation in front of the Board tomorrow morning from -- anywhere from 8:30 till noon, I believe, if that's correct. That's -- and so I'd like to invite everybody here to please come back tomorrow and to be present for our presentation. We put a lot of time and effort into it and I will spend a minute or so thanking all the people that have helped us put this petition together.

Everybody needs to know that everything we put in that petition was volunteered to us. Dr. Bob Biceline* gave us 38 years of experience at Rocky Flats; Dr. Goldsmith, who did epidemiology for the Department of Energy in Washington, D.C.; Steve Baker, internal dosimetry, 28 years; Jennifer Thompson put the petition together for us, she did all the technical writing that was absolutely donated for free. That's everything that we put

together we -- we collected from site experts, and I'm going to miss a few, so I -- I have to tell you that I'd like to thank all those people. I'd like to thank Terrie Barrie of ANWAG for working very hard on behalf of the sick nuclear weapons workers. And there's just so many people in the room -- we have Richard Miller, who's always been an advocate of the workers; Senator Salazar's office for all their support; Senator Allard's office for -- for their support; Congressman Mark Udall, Congressman Bob Beauprez -- we've had a tremendous amount of support for this petition. That's -- I'm around -- or I'm going to end this saying that, you know, everybody came together for the sick nuclear weapons worker. Tomorrow we will give our presentation and please come back. That's -- we feel that it's worth everybody, you know, listening to. The public is invited, so thank you.

DR. ZIEMER: Thank you very much, Tony. Indeed our meetings are fully open, so everyone is indeed welcome to -- to attend the meeting tomorrow morning. Larry -- let me give you the time.

DR. WADE: It begins at 8:30.

DR. ZIEMER: 8:30. 8:30, and be right here. Larry Rands?

MR. RANDS: Hi, my name is Larry Rands. I spent 19 years working at Rocky Flats, mostly in what we referred to as the hot areas. And I was laid off in 2001, voluntary lay-off. Two years later I was diagnosed with lung cancer, and a month after that I had my right lung removed, along with a rib, and followed by chemotherapy, which has affected my balance, my -- numb -- I have numbness in my hands and feet. And so my point of contention of being here tonight is not only for myself but to give you an idea of some of the things that claimants have to go through.

I had filed a claim beginning in 2004. I am still appealing denials, and I have been requested to provide information -- names, dates, places, types of exposures, duration of exposures, et cetera, et cetera. And I'm sure that you realize what a joke that is.

I have filed for information regarding dosimetry logs, radiation control logs and on and on and on. I can provide -- I have a

limited number of copies, but I can provide that for you. And the burden of proof has always come back to me.

In one case I received a letter and the -- the gentleman said that I needed to obtain a written medical report from my attending physicians showing a causal -- this is, you know, verbiage -- the causal relationship between my claim for pancreatic cancer and the cause of death indicated on my death certificate. Well, I'm here to tell you that I'm still alive. At least I think I am.

And my -- the people that spoke before me told you about the ludicrous stuff that's going on, and -- and this is -- I can vouch for that. I have filed a letter of petition, I guess, if you will, for -- under the Freedom of Information Act to get records regarding exposures to carcinogenic chemicals that were used at the Flats. Most of the focus is on radiation exposure, but any of us that have been involved with decontamination work or any glovebox work -- maintenance men, construction workers, it goes on and on -- we were exposed to more than just radiation, which could

produce cancers.
The NIOSH dose reconstruction report that I received said that I had received 47 rem to the lung, but the causal percentage was 37 percent. And the guidelines that NIOSH uses say that anything under 50 percent is denied. So my point being that dose reconstruction does not always consider the dose received by an individual working in a high dose rate job. They take averages, I believe, for the areas or the buildings. They take an average number of hours that may or may not have been worked by an individual. And that's pretty much where they get their dose reconstruction numbers from.
I know for a fact that, as Diane pointed out, you know, as material was stored in Building 371 in the later years, prior to being shipped out, background radiation in Building 371 and 374 increased. Was not taken into consideration. Many of the workers there were office workers. At one -- it finally got to the point that -- that the workers had to -- even the administrative workers had to wear their dosimetry badges in the area working in

their offices. Their desks had to be moved away from the walls because of increased radiation. Now what about -- until that occurred, what about the dose received then? The record-keeping is virtually non-existent, and records which might aid a worker claim cannot be found or do not exist, and this is from my personal experience. I've requested this information. I've been told it does not exist or it's not reproducible. If I want to pursue it, it will cost me $40 an hour to have someone dig through the boxes that they have located at the Federal Center. It will cost ten cents a page, plus a percentage on top of that to have that information reproduced and sent to me. Now that information I just got over the phone in the last couple of days, so I'm expecting a letter to document that by the end of the week.

So the burden of proof lies with the worker who worked in an atmosphere of a need to know, and wasn't always aware of the chronic effects from the chemical exposure and the radiation exposure that we had.

Routine exposures were not recorded and people

were not sent to medical for contamination or chemical exposure unless necessary. And I'm sure that this is just reiteration of what you may or may not have heard already, but a lot of that occurred.

Workers were exposed to unrecorded radiation exposure as the stored radioactive waste accumulated and aged. The amount of dosage went up. Unusual results, which has already been mentioned, were disregarded and averages were used for a matter of record. Well, it's a little unusual this time, but in the past that person only had a certain amount of -- so we'll just use that and erase or change the figure, so...

If you need a copy, I can do that. Thank you for your time.

DR. ZIEMER: Before you sit down, sir, Mike Gibson on the Advisory Board has a question, I believe, for you -- for Larry -- or no -- yes, for Larry.

MR. GIBSON: I have a question and a comment. Dr. Ziemer, I believe if the records and the transcripts will reflect, I -- I read into the record a redacted letter to a claimant from a

Mound facility in Miamisburg basically asking the same information that this gentleman was asked, and I was assured by one of the governmental agencies that sent this letter to the claimants that these letters would no longer go out and this practice would be stopped. And if -- if the gentleman would care to share with us, I would like to know when you received that letter.

DR. ZIEMER: And incidentally, this -- this was a letter -- was this to DOL or -- A letter from DOL.

MR. GIBSON: The question was, this same letter was sent to a claimant and I read it -- a redacted copy of that letter into the record, I believe back in St. Louis, several months ago. And the agency in charge assured me that this letter would no longer be sent out to claimants. So I'm just wondering, if you'd care to share with us, did you receive this letter recently or did you receive it several months ago?

DR. ZIEMER: This says I think June 10th of 2005. Is that the letter that you're referring to?

MR. RANDS: Which letter do you mean? I've got a stack --

MR. GIBSON: Okay --

MR. RANDS: -- of correspondence this high in my --

MR. GIBSON: I'm --

MR. RANDS: -- different people from the Department of Energy, from the Department of Labor and NIOSH records.

MR. GIBSON: Okay. I'm sorry, sir, I'm referring to the letter that you referred to asking for a physician to sign a letter saying about the causation of your illness.

MR. RANDS: Right. Okay, that --

MR. GIBSON: What -- what was the date of that letter if you don't mind sharing?

MR. RANDS: I don't. Okay, that was about January 15th of 2006.

DR. ZIEMER: Well, that was very recent then.

MR. GIBSON: So that was after -- that was after -- that we were assured by -- the Board was assured that that letter would no longer go out to claimants.

MR. RANDS: Okay.

MR. GIBSON: Okay. I just want that on the

record.

MR. RANDS: This is from the EEOIC (sic), the -- what's the thing here -- Energy Employees Occupational Illness Compensation group, and that was about the 15th -- I think it was dated maybe the 13th. I could reproduce that.

MR. GIBSON: Yeah, January 15th, I just -- I just seen it.

MR. RANDS: Okay.

MR. GIBSON: January 15th of 2006, so --

MR. RANDS: Right.

DR. ZIEMER: Okay, thank you. That's the information you were looking for. I think --

MR. GIBSON: I'd like to --

DR. ZIEMER: -- there's a concern here which we'll have to follow up on.

MR. GIBSON: Yes, thank --

MR. RANDS: Thank you.

MR. GIBSON: Thank you, sir.

DR. ZIEMER: Okay, then James Turner is next. Is James Turner here?

(No responses)

Okay, maybe he stepped out momentarily. Mark Denhower -- Danhower -- Denhower*? Is that Mark? No?

MR. DANHOWER: My name is Mark Danhower. I'm an insulator. I worked out of Rocky Flats for four years and I have large B-cell diffuse non-Hodgkin's lymphoma. I got that at 37 years old. I'm only 40 right now.

I was only -- I hear a lot of stories about a lot of people who worked in the gloveboxes and production days and everything else. I was only involved in the last four years, but I got sick. And I've been in remission for two and a half years, but I have to live with that every day, that I can come out of remission at any time, and it scares the hell out of me. And I know there's other people here that are sick that are older -- may be a little bit easier for them to handle, but I'm only 40 years old and I have a family.

Luckily I was able to get -- I got married and got some health insurance before I got sick, so that way my wife can be taken care of. But in the meantime, the monetary, the health, the psychological, the physical effects of chemo, like you just heard from this gentleman. I got one of the most intense treatments of chemo that you can get, five days a week, 24 hours a

day, six treatments, and that will -- ended me up in the hospital for two weeks after every treatment.

I can go on and on about, you know, the financial, emotional, the -- the disabilities that I have now at 40 years old that I shouldn't have -- back problems, leg problems, tingling in my hands and the feet. I got the same thing you got. You know, and I still have another 20, 25 years to work, and I don't qualify for disability because I'm not disabled enough. So I have to live on pain medication and shots that hopefully when I'm able to go back to work they will hire me, being on all this medication. And they're taking a big risk giving me a job.

You know, the -- the emotional distress that it -- that it does to you, knowing that you have cancer at such a young age. I know a lot of kids have cancer. I dealt with kids with cancer when I was around 21. I worked in Children's Hospital, dealt with Ronald McDonald House, all that stuff, and it just -- kind of ironic I ended up in that same position, but I can't imagine how a kid would feel being sick.

You know, I know I was scared to death 'cause I was stage three when they found it, and the only reason they found it in time was because of my wife. She demanded a CAT scan. And that was through my private insurance.

So you know, I've torn down the area where they had the fire in '69, where they put up false ceiling. I tore that down. I torn down G-mod in 707, the beryllium room. I've torn down ductwork 30 foot high that had dust on it where you wouldn't believe from incidences that these people talk about that happened 30 years ago that 30 feet up in the air that nobody could get to because of all the conduit and all the -- - the ductwork and everything else that we couldn't get to until we took everything up from the bottom up. And by the time we got up there, you know, nobody knew until I brought that piece all the way back down to the floor and had the RCT swipe it to find out that stuff was screaming, you know, and we were in that area the day before -- you know, you got people in one room with jack hammers on the walls and you got people over here making a whole bunch of noise and shaking dust and everything and

we're walking around in that area and it's not posted. And the next day it's screaming hot once I take a piece of ductwork down.

And I was told by my doctor that radiation exposure can cause non-Hodgkin's lymphoma. And I've -- I think they did my reconstruction and they put me at .03 percent, which means I don't have a chance in hell of getting a penny, or life insurance, or health insurance that I desperately need because if my -- my wife works through the State, and if she loses her job, I lose my health insurance. And if I get sick again, I'm dead in the water. I mean I went bankrupt with health insurance, but losing almost $90,000 in payroll from working out -- 'cause I couldn't work at the Flats when I got sick. I didn't qualify for disability 'cause you have to be disabled for at least a year, so I didn't get a penny from them. I'd just bought a new house.

I mean I can give you a sob story all night long. I know these other people have other stuff they want to say that's probably more important, but I also want to put a face to the disease that's out there. There's guys out

there that were 18, 19 years old that hopefully won't get sick. But who knows what they were exposed to because -- you know, they're going to be in the same position I'm in now 20 years from now, and hopefully they're not standing in front of a Board begging you for money. But not to go on vacation or anything else, but just to compensate for the loss that you've had to go through through the price of the insurance, the deductibles -- I still have to pay out of pocket money for my chemo -- not my chemo but my -- the pain I have from my chemo. I still have out of pocket expenses. It nev-- it's a never-ending deal.

It never stops and, to me, that would be the biggest thing is long-term health insurance. Because I know a lot of people that are uninsured and can't afford it, and I know I was truly lucky enough to get on my wife's insurance before I went out to Rocky Flats, so I'm one of the lucky ones I think when it comes to insurance because I know there's a lot of people that are uninsured or can't -- can't afford it. But if she loses her job, I can definitely -- will never be able to afford it.

And like I said, my doctor tells me more and more -- the more I'm in remission, the less chance I have of getting certain -- you know, my cancer coming back. But I was also told that the chemo that I received can also cause other cancers. I could end up with leukemia. I could end up with anything.

And if I -- if I get sick again, I have to have a bone marrow transplant. And because my brothers are half-brothers, I have to depend on a anonymous donor to save my life. I hope to God nobody ever has to have that in the back of their mind, that they have to go on a computer to find a stranger to save your life. I have to live with that every day.

So I appreciate your time. I wish all of you the best. I wish everything works out for everybody. I just hope that you have an impact on this cohort status because that is the only way any of us is going to ever see a penny.

DR. ZIEMER: Thank you.

MR. DANHOWER: That's the way I feel. Thank you.

DR. ZIEMER: Leslie Britton?

MR. BRITTON: Good evening.

DR. ZIEMER: Or is it -- Lessie -- Lessie?
MR. BRITTON: Lessie. There you go, you get a dime for that. Lot of folks -- most folks at Rocky Flats call me Les, and I'm a newcomer like this young man, was out there six years, and I got BE exposed.
Now let me just -- now the folks that worked there, we did make history. I think it was projected to where we were supposed to lose two and a half people during the process of taking down Rocky Flats. All right. We didn't do it. That's the -- that's the good side. But the down side is, look at all the exposure and the sickness that came after that.
Only thing I'm asking is this here. Being that I was out there just six years and my BE sensitivity did not -- okay? -- and for some strange reason he can't find the paperwork of that. Now that's bad. And I don't understand this because it's only been six years, I've only been gone for two years. But now like the folks that's been out there that's been there some 25 and 30 years, you know, and like here they are, they're dying from cancer -- or have died from cancer, and this young man here is 40

years old, he doesn't know what's going to happen to him. But what I don't understand is how does the government and people in power just throw away the citizens that helped save this country. How do you just throw them away? Why is it that you don't care anything about the people that helped save this country? And then you do all the other like idiotic mess of stuff we won't discuss about going on now -- folks can't get any help it seems because the system is clogged up -- by what? Just use your own imagination. All right?

I don't have nothing against nobody human being -- okay? -- because my family's Heinz 57. Okay? But the (inaudible) was just here, I don't appreciate no one coming to this country without paying their dues that a lot of us have paid to live in this country. You come here, you get a free ride. All right? And then here we are, you got -- believe me, I mean I'm proud of the fact that I was part of Rocky Flats taking down, see, because we did it most safe-- safest way possible. But the after-effect -- think about the aftereffect, and who cares about that? The folks that don't care and just

holding power, the right policy and things, there's nothing wrong with them. But now you have one doctor that's going to raise a bunch of ruck-- and you know him, Dr. MacInerney*. We worked in G module where this man -- young man tore down. I got exposed to BE there. He brought us -- a team of physicians in, which is him and 11 others. They was exposed. They had no PAPRs, no Tyveks, nothing. Then two weeks after they came in G module, then they post the room. I've never in my life heard a doctor talk this bad about anybody. The man might have got -- I don't blame him for getting upset for the simple reason he got exposed and didn't have to be exposed.

I understand what makes this world go round, and it's not the people. It's the money. Folks care more about bonuses than bones that make people. We'll sit here and we can talk all day long about what you're going to do, but then that -- you've spent $95 million on 30 people. All right. And when this program come about, I mean what -- and they said the $95 million was paperwork. You care nothing -- you care more about paper than people. Why is

that? You got -- you sit and you listen to me, you sit -- all these folks here, but here -- look at us, look at us. Folks is dying. It's the one's that's not dead. People are hurting. Credit, triple A-1 down to zero, bankruptcy. Like the young man said, begging for pennies when millions have been spent foolishly simply because we have jackasses in office. I'm real serious about that. And we have jackasses in here in high position that don't want to do anything, you know.

I'm not hurting, you know. I don't have to do this here. I don't have to take no -- I take more drugs than anybody in here to keep from the pain that I have, just to function. Not to get high, just to come in here. Every day, to get up. It hurts. My wife have to deal with that. My children. But the name of the tune is that I'm going to be all right, until I die. But then we're all going to die from something, and we agree to that. But if you all have any kind of power to get these fools off they behinds and take care of the people that dedicated their lives to saving this country, holding this country together, then maybe it'd

be a better country -- when you've spent all your time on other stuff that really don't even matter simply because they haven't paid they dues. Everybody in here has paid their dues to live in America. Thank you.

DR. ZIEMER: Okay, well said, Lessie. And Jan Dennemest -- Dennemest?

MS. DEMOREST: Yes, Demorest.

DR. ZIEMER: Is that close?

MS. DEMOREST: Hi, I'd just like to say that I, too, received the Part E letter that you were asking for in approximately January. I'd also received a telephone call from Hanford's Resource Center asking for an interview. I had that deferred because I am now facing another possible cancer and was unable to do anything other than meet with a physician and asking him to write another letter identifying all of these issues. So I'm glad if in fact that has been canceled as far as -- as what is necessary for a claimant to provide for the Part E, if that's in fact what you were referring to. I would be glad to supply a copy of that letter if you -- if you would so desire.

MR. GIBSON: The Board was as-- the Board was

assured it would be taken care of, but evidently it has not yet.

MS. DEMOREST: Committee members, representatives from our Colorado senators and congressmen, fellow Steelworkers, fellow Rocky Flats claimants and concerned citizens, thank you for the opportunity to speak to issues regarding my experience at Rocky Flats --

MS. MUNN: Ma'am --

MS. DEMOREST: -- and I request that you support the Rocky Flats SEC petition --

DR. ZIEMER: We need to have you --

MS. DEMOREST: -- for all claimants --

DR. ZIEMER: -- get a little closer --

MS. MUNN: Could you please --

DR. ZIEMER: -- to the mike, if you --

MS. MUNN: -- get closer to the mike? We can't hear you.

MS. DEMOREST: Sure.

DR. ZIEMER: Yeah, that's better.

MS. DEMOREST: I'm just thanking you for -- can you hear me now?

DR. ZIEMER: Yeah, that's better.

MS. DEMOREST: There's a saying to that, I think. I request that you support the Rocky

Flats SEC petition for all claimants, production and non-production workers alike. My name is Janet Demorest and I am a claimant under the EEOICPA as I contracted breast cancer, multi-focal ductal carcinoma in situ requiring a modified radical mastectomy in 1994. Two and a half years later, after multiple tumor aspirations and excision biopsies to verify the presence or absence of cancerous cells in one and a half centimeter tumors growing at a rate of every three weeks to three months, 11 in all, and when one of the biopsies indicated precancerous hyperplasia on the ductal cells and when I underwent a prophylactic modified radical mastectomy of the other breast in order to reduce the chances of full-blown carcinoma or metastatic breast cancer.

I was an employee. I was a non-production worker at Rocky Flats environmental technology site at the time I contracted cancer. From 1991 to 2000 were the ten years that I spent there. Note that all production of pits had ceased at this time. However, the incidence of cancer did not, for a production worker or non-

production worker, as we have heard in many instances tonight.

Although -- although the NIOSH reconstructed a radiation dose for my claim as I had not been issued a dosimeter at Rocky Flats per their management policy, and I challenge you to ask why such a policy existed, I did not believe, nor do I now, that my exposures were accurately estimated and cannot be estimated for sufficient accuracy. I therefore requested a re-evaluation of my claim, which was appealed August 19th of 2005, and a hearing took place in October. The hearing was, in my estimation, a farce, a complete waste of time and money, as was the three and a half years waiting to be heard.

I'll just briefly explain why. For instance, during the hearing, the person who was overseeing the hearing greeted me cheerfully, stating that she remembered me as she was the one who had taken my claim input more than three years previously. I thought how strange that the same person who took my input was now the hearing official. Is this a conflict of interest?

It was an emotional hour, but it was longer than the five minutes the older gentleman before me in line had his hearing, a man who was obviously crippled, and he was only allowed five minutes for his hearing because the recorder personnel was late. So in order to keep on time, they did not reschedule his hearing. I found this strange, and I question how fair.

I had heard -- I had told the hearing personnel that I needed to make sure that the hearing was for Part B and not Part E, because none of my letters ever indicated that the claim hearing was for which part. As I left my hearing, the official stated, "If you get any more cancer of any kind, please let me know." I was stupefied. I had no response to such an inappropriate comment. What a horrible way to exit a cancer patient, fighting for my life.

My claim was in fact denied, with no reconsideration of any of the facts which had been submitted in writing, verbalized multiple times in many phone interviews, nor per the hearing. A dose reconstruction of .65 millirem placed me at .25 percent risk. This totally

ignored all of the facts that I had submitted. What was ignored? All of it. For instance, the fact that my office -- that is my desk -- was in a cold building. The documentation in the DOE records did not indicate that as the maintenance implementation program manager that I did not manage anyone. It was simply a title given to me because there was a new DOE order for maintenance programs for DOE facilities which required assessment of maintenance operations at DOE nuclear and non-nuclear facilities and implementation of SHAOW* statements for the DOE. That is the construction worker program, which we have heard of tonight.

The fact that my job required that I accompany those construction crews, the maintenance workers, who also were my escorts since I had no dosimeter and had not been tasked for radiation worker training, per the management. I ask you again, why? These crews which I accompanied were electricians, welders, painters, carpenters, pipefitters, metrology technicians to check calibration of instruments, among others. We went into all

the buildings, more than 400 at the time, on a routine basis up to the time of my diagnosis in January of 1994. The buildings which I worked in included cold -- that is assumed cold -- such as Buildings as 060, 111 and 112, 115, 130, 131, 331, 334, 460, the trailers, medical, metrology buildings, et cetera -- and hot buildings, such as 371, 441, 443, 554, 771 -- which we've heard a lot about tonight -- 776, 881, 707, et cetera. The fact that many cold areas within a hot building for non-production staff, which we have also heard instance proclaimed tonight, who were therefore not required to wear dosimetry -- these buildings had ventilation systems which were not always separated and were not HEPA ventilated from the hot areas. Therefore the air circulated throughout such buildings from the production side to the non-production office areas. So even a visit to a cold building could result in undetected contamination.

Could I or other non-production workers therefore have received some rad, if present, from sitting at my desk? Or attending a meeting in a cold side of the building? More

likely than not is what most workers would tell you.

Fact: Painters reported to me of instances, though I was not in the area at the time, in which they were preparing a wall in a cold area, only to find the marker for radiation -- purple paint -- beneath layers of normal paint in areas where workers had their desks and conducted paperwork, believing -- and for all indications, they were right -- that they were in a non-rad area. The purple paint, however, indicated that the radiation of some type had warranted the warning, which had mistakenly been painted over at some point in time. Hence any worker, production or non-production worker, would have been exposed to some type of radiation, and most likely not be wary -- be wearing a TLD when in that designated office uncontrolled area.

Fact: I might need to attend a meeting carrying paperwork back from an office in another building, often held in Building 771, the most dangerous building in the world, per former Secretary of Energy, Mr. Pena. Meetings were generally held in the cafeteria, or a cold

office area -- also which are referred to other accountants tonight.

It was not until after my cancer identification when I demanded that I be issued a dosimeter that I received a recorded dose, 0.11 rem. Where have I been? Building 771 in a meeting in the cafeteria? Yes. It was not until years later that I found out that the liquid plutonium processing tanks -- which were now leaking badly, post the infamous FBI raid, and had to be drained -- were on the other side of the cafeteria wall. Did my manager or supervisor ever go into these areas? All I know is I never saw a one of them in any of the buildings. They sent me instead, including going to meetings at other sites, such as Savannah River, Y-12, Pantex.

While at Pantex there was a tritium release, and Pantex had made sure to issue me a dosimeter. However, the NIOSH report did not include the Pantex dosimetry report.

Oak Ridge, Y-12, I was there many times. The later -- during a latter tour it included a tour of the side of Y-12 in which I noted that a pad was filled with everything from tires to

desks in the open, uncovered. When I asked what was that, the reply -- it's contaminated stuff, and it had been filmed in a documentary by a major television program the week before as being a concern to the safety of workers and visitors -- and the public. Possible contamination exposure sans dosimetry, even when I was visiting other DOE facilities as part of my job, both pre- and post-cancer diagnosis.

Y-12, incidentally, has now been given SEC status.

Fact: Sources were present in many of the buildings, some of which I was aware of, such as low-level sources for the metrologists in calibration of instruments. Others, which were much larger, higher rad sources which at the time I had no knowledge of the close proximity to which I was working, as I had no need to know.

For example, there was apparently an extremely large source, the size of a room -- which room I do not know -- which leers (sic) [years/layers] later during D&D activities had to be excised from the hot building by cutting

out the floor and having a crane lowered into a vender truck, the source occupying the entire back end of the truck. These activities were reported to me because then I was oversight for transportation activities, hence my need to know at the time of post-cancer that the source was originally greater than 20,000 curies of cesium, 20,000 curies. How many times have I and others walked into that area and the escort would warn me to -- don't touch anything, hurry. Was there sufficient protection? Doubtful, though I hope so for all the workers' sake. But I do know that the workers whom I accompanied were concerned.

Fact: I was sitting at my desk in the maintenance building, Building 334, cold building -- I don't recall the date, but I include it as it typifies, unfortunately, the hazards of daily work at Rocky Flats -- when an announcement was made regarding an incident that had finally been reported, something like six days past the incident, in which liquid plutonium tanks had been successfully drained -- a major feat. The first one had gone so well that, despite the fact that the work order was

to drain only one tank, a second had been drained as well, without taking time to assay the contents of the second tank. This allowed close proximity of two different concentrations of Pu, a potential criticality situation, which was identified nor reported until after the assay was completed. An investigation was conducted, an occurrence report filed, and two high-level supervisors lost their jobs as a consequence.

Where had I been during that week, during the time frame of the tank drain to the time of notification? In that same building.

Exposure? Highly likely, but not measured, no dosimetry.

Fact: Regarding Building 771 again, I had to ensure maintenance crew operation support in the building. When not escorted, I could enter the area but not the building per se, so I would stand outside and observe the work outside. If maintenance crews didn't show on time, or there was a problem, I might make a phone call from a tunnel adjacent to the dock area. It wasn't until after I had rad worker training years later in 1998 that I found out

that the tunnel was part of the transfer of drums of liquid plutonium, and other stuff, and was an area I definitely should not have been in. Dosimetry? No. PPE? No.

I was also not aware at the time that due to the fire that was in Building 771, and others, that temperatures had caused plutonium to become oxidized into high-fired oxides, also known as Super Class Y materials. Due to this unique form of plutonium, and since this is the building where I later, post-cancer diagnosis, was in when I had a dosimeter and received a dose -- I'd only been in the cafeteria, remember -- it would -- could well have been due to Pu exposure, as well as to Super Y particles of high-fired oxide plutonium, which cannot be detected at the same levels of normal Pu due to their extremely small size.

Note: It is my understanding that even Super Y particles are not detectible by TLDs. Since I was in various buildings on a daily, weekly basis for over three and a half years prior to my cancer diagnosis, or after, overall I could well have had the potential for chronic, low-dose exposure to ionizing radiation, including

Super Y particles.
Fact: That I continuously walked by filled drums while swipes were being taken and loaded onto docks for transportation to other areas.
Fact: I would sometimes be caught in rad building during a shut-down due to a crit alarm and confined to an area sometimes for several hours. Exposure? Most likely.
Fact: The grounds themselves were contaminated. Driving past the gates from the east gate, one had to drive past rad-posted fenced-in open soil areas with sprinkler heads and hoses visible. As a new employee when I asked why they were trying to keep the sagebrush and the tumbleweeds green, I was informed that that wasn't the purpose. But after the fires in Building 771 and 707, the water had to be put someplace for the fires, and it over -- because it had overflown the berms, and so one of the ways was -- to get rid of the hot water was to spray it on the soil using a common sprinkler system, which of course contaminated the soil and could blow around when fierce winds hit, further spreading contaminants.

Fact: Another method was one that was then developed to contain the contaminated water by building solar ponds, which were areas employees continually walked by. I was told not to deter any animals I saw drinking from these ponds so that we wouldn't be in violation of EPA laws. RCTs were baffled to find hot areas at the base of electric wire poles, which electricians had to maintain, until one day they found a coyote relieving himself onto the base of the pole. The animals were drinking from the solar ponds. I didn't drink from the solar pond, but I drove or walked by them routinely as I went from one area to another, as did every employee at the site, whether a production worker or a non-production worker. We all had potential to receive ionizing radiation.

It is difficult to describe in retrospect the laissez faire attitude we as workers came to accept about our working conditions. We would go about our work, and most of the workers pooh-poohed the idea of any real danger to any of it. After all, they couldn't see it. They were used to it, and nothing had happened to

them so far. However, I believe it was also because they really didn't know how truly dangerous it was. Nor, in fairness to the discoverers of the entire nuclear bomb process, neither did they. Would I work there if I had known the level of contamination and not believed in what I was told, not to worry? Absolutely not.

Post-cancer, my activities and locations were changed, mostly at my request, so that I would not be exposed to ionizing radiation. I was terrified of getting cancer again. I was issued a dosimeter and was limited by the Rocky Flats medical officer to 100 millirem per year. Likewise, I reduced my visits to other buildings. Yet one visit alone to 771 and that's where I received my one and only recorded dose.

I never went back to 771 after that, yet NIOSH included this post-cancer single reading as a primary basis to calculate my pre-cancer dose as part of the dose reconstruction, and ignored all the incidents I have just related. Why? Because I did not provide dates of the incidents.

I often wonder if the clothes in my closets, the papers I carried back from meetings and others contained contamination back to me, to my family, to my peers. Is it still there? Where, and when did I get the uranium and plutonium found in my exit, and only, urinalysis in June of 2000, none of which were above decision levels.

In light of the BEIR VII report of June 29th, 2005, which was just four days after I received my NIOSH report, and others, surely any exposure this one measured should not be considered to be a causative agent to cancer. The BEIR VII report details that any ionizing radiation can cause cancer. I -- yet this is not included in the NIOSH model for determination of any of the cancers.

As low as reasonably acceptable, or LARA, levels were constantly being changed at Rocky Flats as D&D activities and contamination exposure increased. Yet a respirator fit was denied me, and a dosimetry was once again denied, and my TLD badge was taken away during my last few months at Rocky Flats. I again ask you, why? I will be glad to give you my

opinion, which I can base upon fact. It was called money.

So again, there was no way to know if I had been exposed or not, even when I might go to the warehouse, the cold Building 130 only to discover unreported incident: filled drums of low-level waste had come across the vender truck now loaded with the once upon time 20,000 curie, there was my -- my wonderful source, but it had really been reduced down to less than 10,000 curies so it could be transported across Colorado highways to Canada.

This is a gigantic source that I was only three feet away from and I did not know. It was in the cold area. Did I receive contamination? Did others? Yes, without a doubt. Was it measured? No, no dosimetry. Just because it wasn't measured doesn't mean in fact that it wasn't present.

Might I once again get cancer? I cannot allow myself to think that, but it is unfortunately a real possibility.

Please consider that other office workers, non-production workers, even managers -- though I was only a program implementation manager --

have been exposed to ionizing radiation, including the extremely dangerous Super Y particles that may have been the cause, at least as likely as not, to have been a contributing factor to potential terminal illnesses such as cancers.

My testimony is an accurate representation to the best of my recollection. The dates, the times, the records of incidents -- no, I didn't keep records of these events because they were routine operations. I didn't have any idea that I might well have been exposed to radiation, let alone to any number of solvents, asbestos, beryllium, during my sojourns around the site. I had no reason to believe that I would need to keep records, for date, for any reason. I was keeping track of ordinary events on a daily calendar in a memo correspondence, none of which I have record of.

Again, NIOSH totally ignored all these incidents which I have just summarized. My own physician's report to NIOSH stating his belief that my cancer was caused by ionizing radiation received as an employee at Rocky Flats was also ignored. How can this be?

I close by sharing an image I shall always recall of one maintenance worker who lost his leg and aged before his years before his -- he died of cancer, who continually came out to the site to visit his friends, to visit the place he considered his home away from home before cancer won, a cancer caused without a doubt due to radiation exposure at Rocky Flats. His family needs compensation. His coworkers need compensation. We must believe in the workers, production or non-production worker. We all worked hard, side by side. We believed in what we were doing with all our hearts, and some have died. Others of us may die sooner than others our age because we were dedicated as Cold War warriors, and were unknowingly exposed to deadly radiation and other toxic substances. It is impossible to reconstruct any dosage received at Rocky Flats, the most contaminated site within the nuclear complex, as indicated by reports by the DOE themselves.

Please support the SEC for Rocky Flats claimants, production and non-production workers alike. Thank you very much.

DR. ZIEMER: Thank you very much, Jan. I'm

going to check back to see if James Turner has come into the assembly.

(No responses)

Apparently not. That then concludes our public comment period. I'm sorry that we did go over a bit, but I think it was important that everybody got a chance to be heard. Thank you very much -- we have a question here. Hang on just a second. Mr. Gibson on the Board wants to ask a point here.

MR. GIBSON: I have a question to ask. It seems that several of the claimants have received their illnesses and stuff within say the last decade, 15 years. Just for informational purposes, could -- could someone tell me who the DOE officials on-site were at that time?

UNIDENTIFIED: (inaudible)

MR. GIBSON: Was it -- well, the top offici-- was it Bob Card* and Jesse Roberson?

UNIDENTIFIED: (inaudible)

MR. GIBSON: Okay.

UNIDENTIFIED: (inaudible)

MR. GIBSON: And did they -- who was the contractor at the site, C.H. Hill?

UNIDENTIFIED: (inaudible)

MR. GIBSON: Hill?

UNIDENTIFIED: (inaudible)

MR. GIBSON: Okay. And then just -- just for the record, it seems to me that shortly thereafter Bob Card and Jesse Roberson went to Washington, D.C. under DOE to take over environmental management, and that's when they established the accelerated clean-up of Rocky Flats, Mound and Fernald.

UNIDENTIFIED: (inaudible)

MR. GIBSON: And when they talked about it -- eventually -- you know, before they took over, we were talking 20 years worth of clean-up, and all of a sudden when they took over -- now all of a sudden, within five years, all three of the sites are cleaned -- supposedly cleaned up, so I just want that information to be on the record.

DR. ZIEMER: Okay. Thank you. There was another question here. Sir? You'll have to use the mike. And again, identify yourself for the court reporter.

UNIDENTIFIED: There's been a lot of Rocky Flats workers come and go, and there's going to

be a lot more that are going to come down sick. Their quality of life is going to change. They're going to have to give up something. My question is to you, if you had to change positions with them, how much quality of life would you be willing to give up?

DR. ZIEMER: Thank you. That's a good question for us to think about. Another question here.

UNIDENTIFIED: (inaudible)

DR. ZIEMER: You'll have to use the mike or -- yeah. Okay. Yeah, that one is portable. Just -- the one in the -- just pull it --

UNIDENTIFIED: I can speak louder --

DR. ZIEMER: No, we mainly need it for the court reporter here.

MS. MUNN: For the record.

DR. ZIEMER: Yeah, need to get it on his tape.

UNIDENTIFIED: I would like to say one thing. Look, guys, I would like to thank my family, my friends for being here. We're going to be sick and we're going to get sicker. And you cannot give us any assurances that you're going to take care of us. We proudly -- proudly served our country. We're just as much soldiers as if they went to any war. I would like to say

thank you to all my friends here. These are my family. When you stand side by side somebody -- with somebody from the management all the way down to the janitor, we're all part of a body that worked together as a team.

DR. ZIEMER: Very good.

UNIDENTIFIED: I want to tell my husband publicly that I'm sorry that I was -- allowed myself to push so hard that I will not be with him for the rest of his life. When his demise comes, and I know that it will, you won't be there.

I would also like to tell you guys that I'm happy for the first time in my life because I've let you guys go. I don't care what you do any more. You can't get my goat. Okay? It's not for sale.

I, Laura Donna Kay Schultz, here swear that from hence on I'm going to live my life as if it's a new life. I'm terribly troubled and grieved of the loss of my family here. These are my family, as if they were my mothers, my sisters, my brothers, my fathers, whatever you might say. It disturbs me that this process is so cumbersome that you cannot pass the SEC

Special Exposure Cohort bill that would also cover from every human being, every soldier that worked at Rocky Flats, no matter who they are. I guess that's all I have to say. I've said my piece.

DR. ZIEMER: Thank you. Thank you. One more question here -- or...

MS. HEAVNER: I was an R-- I was an RCT, I'm --

DR. ZIEMER: Identify yourself --

MS. HEAVNER: -- Elizabeth Heavner.

DR. ZIEMER: Identify yourself for the court --

MS. HEAVNER: Elizabeth Heavner. I was an RCT on the step-off pad for a while in 774, and they had done away with doing any kind of bioassay in high radi-- high -- highly contaminated areas. The kids would come -- their -- their respirators were so hot that they were infinity, and I said well, don't you need your nasal/mouth smears and your bioassay, and they said they took it out of our package. Now they don't require anything. And this man wore this mask that was so hot it had to be shipped in high-level waste, and yet no bioassay was -- they had done away with bioassay and they had done away with safety

because years ago we were told you couldn't wear your mask over two hours because the seal breaks. Once you start sweating, your respirator seal breaks.

And also I worked a lot of years in G module, never had a respirator. Every other month I had to be cycled out because I had more than 100 millirem in a month. And yet -- so I'd be out a month, go back a month. And we never had respirators. We sanded on BE with no down-drafts, no kind of thing to catch the dust. And we would talk about that, and they'd say it's not necessary.

But the rules went out, and there's other kinds of illnesses that come from radiation and this contamination besides cancer. And I, too -- they put me on permanent disability and I won't be able to work, but mine's not necessarily a diagnosed cancer and I -- I breathed a lot of BE in, but they won't agree to do a lavage to do a check. And you know, we're denied all the stuff and Dr. MacInerney at the end wasn't even allowed to talk to workers. I called for weeks trying to get him to help me out, and they said well, he's not allowed to because he hasn't

seen you recently.
So you know, there's other things that happened to people that should be taken into consideration because, like me, I can't get a job. I live on morphine and all these pills. And you know, I'm not -- I'm still in my fifties and I think that should be considered in the bill also.
My husband has BE. They can't do lavages 'cause they can't get the stuff out. He had high dose dosimetry areas and they would just up their limit and keep working, and they would lose their dosimeter for that month. In another area he worked on he had to wear ten dosimeters. Now none of that stuff showed up in the records. And records clear back to the '80s -- I kept mine because I -- I'm a pack rat on paperwork and stuff, but there was a lot of injustice done to people out there and I think everything should be considered, not just cancer.
Judy here, she has a BE in her lungs and she's been denied over and over. And she's had cancer, also.
Do you want to say something?

DR. ZIEMER: Thank you.
MS. PIERSON: I have berylliosis and the question I've -- my case has been turned over to five different caseworkers, and the la-- the last two wanted to know well, what years and which mines did I work coal in. Now just look at me. Have I been in a coal mine? Have -- have I done stuff like that? When I tell them that I worked in Building 44 for eight years, this doesn't mean anything to them and it doesn't mean anything to anybody. Just -- you -- you're sick, so let's just move on. It -- it isn't fair to any of us. It isn't fair to any of us.
DR. ZIEMER: Thank you.
MS. MUNN: We didn't get her name.
MS. PIERSON: My name is Judy Pierson.
DR. ZIEMER: Yeah, thank you. Obviously many frustrations. Thank you for sharing that. We do need to come to closure -- I have another comment, sir. Go ahead.
MR. WYNN: My name is Chuck Wynn. I live in Boulder. I worked at Rocky Flats from '58 to '61. I worked in Building 71. I think they refer it now to 771. At that time it was 71.

I was injured working in a glass -- in a glovebox with glass, puncture wound, which was contaminated with plutonium. I quit in '61. I didn't have any problems till '84. All of a sudden I started getting sores in my mouth and running a high fever. I went to the doctor and the guy says well, you've got herpes. So oh, okay, send me back home.

The next day I was so sick my wife took me back to the same doctor practice but a different doctor and he says I'm going to take a blood test.

He took a blood test and he come right back and he grabbed me by the arm and he says Chuck, you have no immune system. It's totally gone.

So he took me right over to the hospital, laid me on the bed and did a bone marrow test, with no -- no shot or anything, laid me down there. My wife was on one arm and two nurses on the other one and he did a bone marrow test, and I'll tell you what. I picked those nurses and my wife right up off the bed it hurt so damned bad.

But anyway, the story is ever since then I'm on this peaks and valleys all the time. Sunday -

- I have a dog that's bad and I was -- I've got a ramp made and I was putting in the -- in my car and I got a sliver. And whenever I get a sliver, I want to show you. This little sliver was so small I just picked it out, but I get an infection. Look at my infection -- my hand how swole (sic) it is. I've been to the doctor and had it operated on five different times 'cause my hand will swell up like this. The only way I can get by is if I take -- they put me on high doses of predisone (sic). Well, predisone causes me to have high sugar and high blood pressure. That's the only thing that keeps me going, so I'm always on these peaks and valleys and we could sure use you guys' help if you can help us settle a lot of these situations here because it was -- and at that time -- I was there when they had the fire and I worked in the pressure suits and everything, and it was -- it wasn't a pretty thing, so --

DR. ZIEMER: Thank you.

MR. WYNN: -- thanks.

DR. ZIEMER: Uh-huh. Yes, sir.

MR. POSEY: Yes, sir, I'm Robert Posey. I would just like to say I've been denied my

claim twice, and those records -- I found out in August 2003 that those records was destroyed many years ago by Dow -- by a chemical company up -- that -- over in their -- I have proved to them that those records are not available, and they have denied me. But they've got the first time to mention anything concerning those lost records. But they find some way to nit-pick something out of there so they can deny it without mentioning that these records is lost, is shredded by the company up there many years ago. All records that was kept over six years or older, they destroyed those records. And they -- the government and the claim handlers have yet to mention, in either one of those denials, that those records are lost and still saying we have no evidence. I can't get no evidence if they done destroyed the records. I've proved this to them over and over and over, and they still says we don't -- now some other little company they wrote here in town, they said that we have no record on him. I don't know where it was the union, CPWO or whatever it was, and they used that. Says CPWO said they don't have no record on you. Well,

who is CPWO? I don't even know. I said now the government got 30-something,000 workers up there and they can't find the record. How could you expect these four or five people over here in some garage to find those records? I just don't believe it can happen. Thank you.

DR. ZIEMER: Thank you. Again, thank all of you for coming tonight. Again, we invite you to return tomorrow. We'll have the formal discussion of the Rocky Flats petition before the Board beginning at 8:30 tomorrow morning.

(Whereupon, the meeting was adjourned at 9:50 p.m.)

CERTIFICATE OF COURT REPORTER

STATE OF GEORGIA

COUNTY OF FULTON

I, Steven Ray Green, Certified Merit Court Reporter, do hereby certify that I reported the above and foregoing on the day of April 26, 2006; and it is a true and accurate transcript of the testimony captioned herein.

I further certify that I am neither kin nor counsel to any of the parties herein, nor have any interest in the cause named herein.

WITNESS my hand and official seal this the 26th day of May, 2006.

_____

STEVEN RAY GREEN, CCR

CERTIFIED MERIT COURT REPORTER

CERTIFICATE NUMBER: A-2102