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CENTERS FOR DISEASE CONTROL AND PREVENTION
NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH

convenes

MEETING FIFTY-EIGHT

ADVISORY BOARD ON

RADIATION AND WORKER HEALTH

VOL. I

DAY ONE

ABRWH BOARD MEETING

The verbatim transcript of the Meeting of the Advisory Board on Radiation and Worker Health held at the Crowne Plaza Hotel, Redondo Beach, California, on Sept. 2, 2008.

STEVEN RAY GREEN AND ASSOCIATES
NATIONALLY CERTIFIED COURT REPORTERS
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C O N T E N T S

Sept. 2, 2008

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

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-- (inaudible)/ (unintelligible) signifies speaker failure, usually failure to use a microphone.

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P R O C E E D I N G S

(1:00 p.m.)

WELCOME AND OPENING COMMENTS
DR. PAUL ZIEMER, CHAIR
DR. CHRISTINE BRANCHE, DFO

DR. BRANCHE: If someone on the line could please let me know that you can hear me.

UNIDENTIFIED: We can hear you.

DR. BRANCHE: Great, thank you.

UNIDENTIFIED: Can hear you.

DR. BRANCHE: Good afternoon. Would someone participating by phone please let me know that you can still hear me?

UNIDENTIFIED: Yes, I can hear you.

DR. BRANCHE: Thank you so much. We are now opening the meeting for the Advisory Board on Radiation and Worker Health, meeting number 58. I'm going to hand it over to Dr. Ziemer, and then I'll (electronic interference) to him.

DR. ZIEMER: Thank you. I'll officially call the meeting to order. Thank you all for your participation. Just for the record, one of the Board members, Dr. Lockey, will not be able to be with us today. Dr. Poston will be joining us very shortly. His plane is just arriving

about now at the airport so he'll be here shortly. Dr. Melius is here but is currently on a conference call, will be back with us shortly as well, but we do have a quorum so we will proceed.

There are copies of today's agenda, as well as related documents and papers, on the table in the rear of this room. If you have not already done so, please avail yourselves of those documents.

Also we ask that everyone -- Board members, federal employees, other guests -- please register your attendance with us today in the booklet that's at the entryway. Also members of the public who wish to make public comment during our public comment period, which is later this afternoon, please sign up in the booklet out there in the foyer as well.

We're pleased to be here in the Los Angeles area and specifically in Redondo Beach. There are facilities in this area that are of interest to the Board and to the program, so we're glad to have the opportunity for individuals and claimants from this area to participate in the activities of the Board this

week.

Now I'm going to ask our Designated Federal Official, who is really phasing out as Designated Federal Official and who is Acting Director of NIOSH now, Dr. Christine Branche, to say a few words for us.

DR. BRANCHE: Good afternoon. Again, this is meeting 58 and I -- I do have the pleasure of being the Designated Federal Official for this Advisory Board, and we are making a transi-- a temp-- appears to be a temporary transition while the Director of NIOSH position will soon be posted and -- a search and posting of the position will soon be underway. I am the Acting Director of NIOSH and Mr. Ted Katz, seated to my right, we're transitioning him very quickly into the position as the Acting Designated Federal Official. But this afternoon I will -- I will do it. Ted and I will share responsibilities tomorrow, and then he'll be here on Thursday.

Now, for those of you participating by phone, we are so happy to be able to provide this opportunity for you, but we do ask that you mute your phones. You can do that by using the

star-6 feature if you do not have a mute button. It is critical that everyone participating by phone use -- use the mute feature so that everyone participating by phone can hear the goings on here in the Board meeting. And then if the Board members and the members of the public who are here this afternoon, if you do -- if you could please use your mike when you are ready to speak. Those of you by phone participating, when you are ready to speak, upon Dr. Ziemer's signal please use the star-6 or the mute button to unmute your line. Again, it is ver-- it is critical for everyone participating by phone to mute your lines.

For those of you here in the room, the emergency exits are directly in the back of the room and straight out to the parking lot. If for some reason fire or other emergency prevents your exit, there is one here behind the Board table, and then you would exit to the left through this exit behind us if that -- if that should become a necessity.

There is a redaction policy that we have for our Board transcripts. If you're here in the

room and -- or by phone and you wish to make a comment, you give your name -- if you give your own name, then there'll be no attempt to redact your name. But NIOSH will take responsible steps to assure that individuals making public comment are aware of the redaction policy. You would provide your own name and it would appear in the transcript of the meeting posted on the public web -- web site. We are reading this statement about our redaction policy at the beginning of this meeting as our first step of making you aware of the policy. Printed copies of our redaction policy are also available at the table in the back of the room. The redaction policy was posted with the *Federal Register* announcement for this meeting, and it is also available separately on the NIOSH web site.

If you are an individual making a statement that reveals personal information -- for example, medical information -- about yourself, that information will not usually be redacted when the transcript is posted on our public web site. The NIOSH Freedom of Information Act coordinator will, however, review all such

revelations in accordance with the Freedom of Information Act and the Federal Advisory Committee Act and, if deemed appropriate, will redact such information.

All disclosures of information concerning third parties will be redacted.

If there's someone here in the room or someone by phone who would like to make a statement and would not like to share your own individual name, if you could please notify me or Mr. Katz before you come to the microphone or before you say your information by phone, we will then entertain any -- any wish to not have your name put in the public record.

Again I ask that everyone participating by phone please mute your line by either pressing the mute button or using star-6.

I will discuss, at a later time on the agenda, some of the transition issues for Mr. -- Mr. Katz to me -- from me to Mr. Katz, rather. But other than that, Dr. Ziemer, thank you very much.

DR. ZIEMER: Okay, thank you. Going to proceed now with the agenda. I should point out that we will in general follow the agenda, but the

times are always estimated or approximated based on how much time we think might be required for a given topic. However, if we get ahead, or if we get behind, we may have to adjust accordingly.

PANTEX PLANT SEC PETITION

Our first topic this afternoon is an SEC petition for workers at the Pantex Plant, which is in Amarillo, Texas. The actual petition, which will be described in a moment by NIOSH, was qualified late last year, in November of '07. The evaluation report, which is required under law once a petition is -- is confirmed or qualified. That particular evaluation report was submitted to the Board and to the public earlier -- I was going to say this month but it now is last month. It was early in August, so it's been just a little under a month ago and the Board has had just a -- two or three weeks to begin to familiarize itself with the content of the evaluation report.

We're going to hear first from Mark Rolfes, who is a staff member for NIOSH and is responsible overall for this particular document, together with some others who have assisted in its

development. Then we will have an opportunity to hear as well from the petitioners, some of whom may be on the line today, and we will find out at that point who is on the line.

But let me ask first if there are petitioners on the line. I want to make sure they hear this presentation.

DR. FUORTES: Hi, this is Lar Fuortes. I'm on the line.

DR. ZIEMER: Okay, thank you.

DR. BRANCHE: If you could please mute your phone until it is time for you to speak -- everyone, if you could please mute your phones. Thank you.

DR. ZIEMER: Dr. Fuortes, are there any others that you know of, of the petitioners' group, that will be on the line today?

DR. FUORTES: I had hoped so, but I have not heard confirmation.

DR. ZIEMER: We'll check -- well, let me ask now, are there others -- others of the petitioners on the line now?

(No responses)

I will check again later after Mr. Rolfes' presentation as well. Thank you very much.

Let us proceed. Welcome, Mark.

MR. ROLFES: Okay. Thank you, Dr. Ziemer. Thank you, Dr. Branche. Ladies and gentlemen, members of the Advisory Board, I am Mark Rolfes. I am a health physicist with the National Institute for Occupational Safety and Health, Office of Compensation Analysis and Support. I'm here today to present to you the NIOSH findings of the Pantex Plant Special Exposure Cohort petition evaluation report.

The Pantex Plant was built in 1942 to load conventional bombs for World War II efforts. An Atomic Energy Commission contract was awarded in 1951 to fabricate high explosives for nuclear weapon mechanical assemblies. Pantex was managed and operated by Proctor and Gamble Defense Corporation until October of 1956, then by Mason Hanger-Silas Mason Company. Mason Hanger-Silas Mason was jointed by Battelle in October of 1991.

From 1957 -- excuse me, from 1951 through 1957 Pantex focused on the assembly of non-nuclear components for In-Flight Insertable weapons. All In-Flight Insertable mechanical assemblies were retired by 1966.

Prior to 1957 only depleted uranium -- depleted uranium was the only nuclear component present at Pantex.

Beginning in 1957 tritium reservoirs were received from the Savannah River Site, and sealed plutonium pits began arriving from the Rocky Flats Plant in 1958.

Gravel Gerties were constructed in 1958 to allow the final assembly of high explosives with fissile materials. Fissile materials were encapsulated in sealed pits.

Pantex's site missions included the fabrication of high explosives. These were non-nuclear components. In the early days, from 1951 through 1962, the fabrication involved the melting, casting and machining to final shape.

Beginning in 1961, high explosives were pressed with a hydrostatic press and then machined.

The second site mission was to assemble nuclear weapons.

The third mission was to develop high explosives, non-nuclear components.

The fourth site mission was the surveillance testing and evaluation of both nuclear and non-nuclear components, and Pantex was also

responsible for conducting retrofits, modifications and retirements of nuclear weapons.

NIOSH received the Pantex SEC petition on September 8th, 2006. NIOSH issued a proposed finding indicating that the petition would not qualify for evaluation on February 5th, 2007. An administrative review was requested on February 20th, 2007 and additional information was provided to NIOSH on February 22nd, 2007. The SEC petition was revised on March 7th, 2007.

NIOSH issued a proposed finding on August 24th, 2007 indicating that the SEC petition did not qualify for evaluation. An administrative review was requested on October 10th, 2007 and as a result of the administrative review findings, the Pantex petition qualified for evaluation on November 20th, 2007 due to doubt about the adequacy of monitoring data at Pantex.

A *Federal Register* notice was then posted on December 17th, 2007 and NIOSH issued its evaluation report on August 8th, 2008.

The petition for Pantex was submitted to NIOSH

on behalf of a class of employees. The petitioner-proposed class definition was all employees who worked in all facilities at the Pantex Plant in Amarillo, Texas from January 1st, 1951 through December 31st, 1991.

NIOSH slightly modified the class and evaluated the following: All employees who worked in any facility or location at the Pantex Plant in Amarillo, Texas from January 1st, 1951 through December 31st, 1991.

As part of the evaluation, NIOSH had access to various sources of information. These included the personnel dosimetry records in the Historical Exposure Records System, and the Dosimetry Records Management System at Pantex. NIOSH had the Oak Ridge Associated University team Technical Information Bulletins, procedures and the Pantex Plant Technical Basis Documents. NIOSH had access to the Pantex Plant health protection surveys, safety standards and operating procedures.

Furthermore, NIOSH has several documents in the site research database. NIOSH conducted interviews with current and former Pantex employees. NIOSH has access to personnel

dosimetry and information contained within case files in the NIOSH/OCAS Claims Tracking System, and also has documentation provided to NIOSH by the petitioners.

Within the NIOSH/OCAS Claims Tracking System, as of August 1st, 2008, Pantex has -- excuse me, NIOSH has received 380 Pantex claims from the Department of Labor which require a dose reconstruction; 357 of those 380 claims met the class definition criteria for this SEC petition. Of the 380 claims that NIOSH has received -- I apologize. Of the 357 claims that met the class definition, 244 dose reconstructions have been completed. Of those 357 claims that met the class definition, 157 contained internal dosimetry data, approximately 44 percent. 240 of the 357 claims had external dosimetry data. That's approximately 67 percent.

The petition bases and concerns were unmonitored workers, and also concerns about the effectiveness of the health protection and industrial health programs.

There was a petition concern that few workers were monitored for external exposure in the

early years; and until 1979 the majority of the Pantex workforce was unmonitored.

NIOSH, in its evaluation, found that radiation monitoring levels were consistent with exposure potential. Pantex issued dosimeters to employees who were likely to receive ten percent of the permissible radiation dose.

From 1952 through 1957 few workers were monitored due to the absence of fissile materials on site. Industrial radiography and medical X-rays were the only significant sources of potential radiation exposure.

From 1958 through 1991 the number of monitored workers increased with the increasing potential for exposure. Monitoring variations were due to weapon production rates, the presence of fissile materials, and quantities of radioactive materials on site.

There was a petition concern that workers' histories and the Tiger Team report questioned the efficacy of the health physics and industrial hygiene programs.

In its evaluation NIOSH found that the Tiger Team reported deficiencies in health physics support staffing levels, questioned the quality

assurance of records, and the implementation of DOE 5480.11 requirements. There was no indication radiation exposures were unmonitored, or that they were unsuitable for bounding doses to Pantex workers.

NIOSH also identified an issue that pre-1993 neutron doses were potentially underestimated. NIOSH's position is that neutron doses recorded since 1994 are reliable, suitable, and also claimant favorable for bounding earlier neutron doses.

Pre-1994 neutron dose reconstruction utilizes a neutron-to-photon ratio methodology.

NIOSH also has access to workplace surveys and intrinsic radiation measurements.

To illustrate how we would complete a dose reconstruction for a Pantex claim, we have put a small sample dose reconstruction together.

For an individual who was employed at Pantex from 1980 through 1986 -- they were employed as a maintenance mechanic from 1980 through 1981, and then a production technician from 1982 through 1986. This individual was a male born in 1929 who was diagnosed with a basal cell carcinoma on the skin of his nose with an ICD-9

code of 173.3. The year of diagnosis was 1996, and for the determination of a probability of causation in IREP, we require ethnicity for skin cancers. This individual was white, non-Hispanic.

For the years of 1980 to 1981 the individual was an unmonitored maintenance mechanic. From 1982 through 1986 the individual was monitored for external exposures as a production technician. As a PT the individual performed weapon assembly, disassembly and inspections in Zone 12. His monitoring data indicated that he had received a recorded photon dose of 4.81 rem and a recorded electron dose of 3.15 rem. No internal monitoring data were provided.

NIOSH made several claimant-favorable assumptions to complete this dose reconstruction. These included the assignment of unmonitored photon, electron and neutron doses for the years of 1980 to 1981. NIOSH also applied 100 percent anterior to posterior radiation exposure geometry. NIOSH assumed that all photons that the individual was exposed to were 100 percent 30 to 250 keV, and that all neutrons were 100 keV to 2 MeV.

Furthermore, all electrons were assumed to be greater than 50 -- 15 keV in energy. An organ dose conversion factor of unity was applied, and ICRP 60 neutron weighting factors of 1.1 -- 1.91, excuse me, were applied. NIOSH also assigned intakes of tritium, uranium, plutonium and thorium.

The external exposures assigned by NIOSH for the unmonitored period from 1980 to 1981 included unmonitored and missed photon doses of 480 millirem; 123 millirem was based on coworker recorded photon dose, 360 millirem was based on coworker missed photon dose.

NIOSH assigned an unmonitored neutron dose of 738 millirem based on the median neutron to photon ratio of .8 to one. Furthermore, an unmonitored electron dose of 123 millirem was assigned for the years of 1980 to 1981 based on a one-to-one ratio of the recorded coworker photon dose.

The external exposures assigned by NIOSH for the monitored period, from 1982 through 1986, included the individual's recorded electron dose of 3.15 rem, his recorded photon dose of 4.81 rem. Also NIOSH calculated a missed

photon dose of 285 millirem based on non-positive dosimetry results. The neutron dose assigned was based on the 95th percentile neutron to photon ratio of 1.7 to one, which was applied to both the missed and recorded photon dose.

The total neutron dose reconstructed by NIOSH was 16.543 rem, of which 15.618 rem was based on recorded photon dose, and 925 millirem was based on missed photon dose.

The intakes assigned from 1980 through 1986 were inhalation intakes of type S natural uranium with an intake rate of 19 picocuries per day, an inhalation intake of type S plutonium with a rate of 290 picocuries per year, an inhalation intake of type S thorium equal to 48 picocuries per year, and we also assigned ingestion intakes of natural uranium at a rate of 44 picocuries per day.

The internal dose was calculated to the skin from 1980 through the date of diagnosis in 1996. The resulting internal dose was less than one millirem.

Additionally, NIOSH assigned 158 millirem to the skin based on tritium coworker doses.

NIOSH has completed this sample dose reconstruction. This is an overestimate of the radiation dose reconstructed to the skin. All sources of radiation exposure have been considered, and the assigned dose exceeds that which was actually received by the claimant. NIOSH has assigned the recorded photon dose of 4.81 rem, the recorded electron dose of 3.15 rem, a calculated missed and unmonitored photon dose of 768 millirem, a missed and unmonitored neutron dose of 17.282 rem, an unmonitored electron dose of 123 millirem; internal dose from uranium, plutonium and thorium intakes, roughly one millirem; an internal dose from tritium equal to 158 millirem, for a total of 26.292 rem.

I want to make a note that we did consider medical X-rays but did not include the doses for medical X-rays were required as a condition of employment because those doses to the skin were less than one millirem.

In the Interactive RadioEpidemiological Program these doses were input specific to this individual, and a probability of causation was calculated. The 99th percentile probability of

causation was equal to 23.74 percent.
NIOSH has evaluated the petition using guidelines in 43 CFR 83.13 and has submitted a summary of its findings in a petition evaluation report to both the Board and to the petitioners. NIOSH issued the Pantex Plant SEC evaluation report on August 8th, 2008.
As part of the evaluation process there is a two-pronged test which is established by EEOICPA and incorporated into 42 CFR 83.13 Part (c)(1) and (c)(3). NIOSH must determine whether it is feasible to estimate the level of radiation doses of individual members of a class with sufficient accuracy. NIOSH must also determine if there is a reasonable likelihood that such radiation dose may have endangered the health of members of the class.
NIOSH found that the available monitoring records, process descriptions and source term data are adequate to complete dose reconstructions with sufficient accuracy for the evaluated class of employees. Therefore, under the law, the health endangerment determination is not required.
In summary, the feasibility findings for the

Pantex Plant petition, SEC-00068, for the years of January 1951 through December 1991, NIOSH found that reconstruction was feasible for internal exposures from uranium, tritium, plutonium, thorium and radon, and that external dose reconstruction was feasible for exposures to gamma, beta, neutron and occupationally-required medical X-rays.

Additional information, documentation and a sample dose reconstruction are available for the Advisory Board's review in the share drive folder "Document Review \ AB Document Review \ Pantex \ Pantex SEC".

Finally, I would like to thank all former and current Pantex workers for their contributions to the security and to the defense of the United States of America. Thank you.

DR. ZIEMER: Thank you very much, Mark. We'll have a brief time for some questions here. Let me start with perhaps more of a comment, but I'd like to refer to slide 14, which references the Tiger Team report, and I would simply like to point out that the Tiger Team report dates back to the early '90s, I don't know the exact date, but your -- you have a comment that says

there's no indication that radiation exposures were unmonitored or unsuitable for bounding doses to Pantex workers. I'd just like to point out that at the time of the Tiger Teams, a question of bounding doses was not an issue that Tiger Teams looked at, so I would -- I -- I don't want this to be misleading. The implication is that therefore you could bound the doses since they didn't say you couldn't. I'm simply pointing out Tiger Team reports typically did not address the issue of bounding doses. That was not a question that was -- I mean this is way before this program existed, so I just simply wanted to point that out. The statement that the -- there wasn't a question about the validity of -- of the monitoring system, I think that is probably fine, although there was this question on the quality assurance. But this particular issue of bounding I don't believe was a Tiger Team issue in any event. I simply want to make sure we're clear on that.

MR. ROLFES: Okay. Thank you.

DR. ZIEMER: Other -- yes, Dr. Poston. And let the record show that Dr. Poston has joined the

group and --

DR. POSTON: I apologize for being late, Mr. Chairman, but yesterday was a holiday representing and recognizing the work of our workers in the U.S. and I refused to travel. Sorry about that.

Mark, just one con-- one clarification. In your presentation you said you did not evaluate the medical doses, but on the other hand in your last slide you showed that they were feasible. So would you say a little bit about that?

MR. ROLFES: Sure.

DR. POSTON: Since you didn't evaluate them, how can you necessarily reach the conclusion that they were feasible?

MR. ROLFES: Thank you, Dr. Poston. Yes, because of the location of the skin cancer on the individual's nose, it would have been outside of the primary beam for a posterior to anterior geometry for a chest X-ray. And it was evaluated, I guess, per se, but it wasn't included in the sample dose reconstruction because the resulting dose was less than one millirem.

DR. POSTON: Thank you.
DR. ZIEMER: Okay, thank you. Other questions at this point?
(No responses)
Okay. Let me now as if Dr. Fuortes is ready to make some comments. Thank you, Mark, very much.
MR. ROLFES: Thank you.
DR. FUORTES: Thank you very much. I -- I do have several comments. The -- the first I'd to -- to address to the Board is really just a protocol process. I believe that NIOSH was tasked with actually assisting petitioners and the history that the -- Mark recounted so well I think speaks to a failure of that assistance in that this petition required two administrative reviews, two denials to administrative reviews to be accepted to -- to be reviewed by the Board. I think that's -- that's rather telling.
There was no information added between that -- the second denial and the administrative review stating that this should go before the Board, so I -- I think that's -- that's rather telling. There was some resistance on the part

of NIOSH to review this petition. I -- I think that's something the Board should know. Another thing I'd like the Board to know is that of information that -- that was presented, you heard that NIOSH did a series of interviews of workers and they used worker interviews as part of getting a gestalt of what -- what happened 50 years ago because there's not good written documentation for some of this history. You should note that NIOSH doesn't require themselves to get affidavits from workers in obtaining histories and using them in their decision-making. Where, as petitioners, we presented several workers' histories and -- these were from -- from interviews that I did, Sara (unintelligible) Ray did and David (unintelligible) of the union did. Those histories were not put before the Board because NIOSH demanded that they be presented in the form of affidavits, and these workers stated to us that they were afraid of repercussions personally or to their families and did not want their names used. I think that's something the -- the Board should know about the process.

My major concern -- I hope I made it evident in the petition -- is paucity of data, the fact that that small minority of workers in the early years were monitored I think speaks for itself. That's both in our petition and in NIOSH's evaluation. The statement that workers were selected on the basis of achieving or being expected to achieve ten percent of a given level of exposure, I think that's a very interesting statement. We could find and nobody at Pantex could find for us a protocol for how radiation monitoring was done in the early years and how selection for monitoring was done, nor could we find any evidence of badges being -- some quality assurance program of how badges would be handled, where they would be stored, quality assurance in terms of blanks, et cetera. None of this was -- was made clear to us.

Probably one of the more telling things that the -- the Board should know about in terms of worker histories, I got this several times from -- from several different sources and it was not stated as a joke, that at times of tritium leaks they were given chits to -- from the

medical office to go home and buy a case of beer and drink as much as they could to flush this out of their systems. This was a -- a story that I thought was apocryphal and humorous, but I heard it several times from old-timers now and in confidence that this is in fact a factual representation of how tritium leaks were handled in early years.

Another thing I would like to bring up that's similar to the IAAP plant in Burlington. These workers were tasked with doing, as Mark suggested, retrofits, repairs and retirement. And these exposures I think are poorly characterized, but from workers' histories appear to be sort of situations in which people might have had probably the highest potential for exposure.

So just to -- to reiterate, I think Mark did a great job in the presentation. However, I think his stress was if everything was done the way we hoped it would have been done, these workers should have been safe. And I have no reason to have as much faith as Mark does at this point.

That -- that's it for me.

DR. ZIEMER: Okay. Thank you very much for those comments. Let me open it -- well, let me ask again, are there other petitioners on the line that have comments?

(No responses)

Apparently not. Okay, Board members, do you have questions or comments relative to this particular evaluation report and the associated petition?

(No responses)

There appear to be no questions or comments. Let me ask Board -- okay, Phil, thank you.

MR. SCHOFIELD: Yes, I have just one question. I'd like to know if they actually have the real numbers of workers in the early years were actually monitored, or are they just estimating at the number. Do they actually have a --

DR. ZIEMER: Yeah, I think -- Mark can answer that, but as -- as I recall from the ER report, they have actual numbers for the different groups that -- go ahead.

MR. ROLFES: Correct.

DR. FUORTES: Could -- could I answer that?

DR. ZIEMER: Okay, yeah, we'll get two answers here. Dr. Fuortes --

MR. ROLFES: Okay, I'll try again here. Yes, we did --

DR. ZIEMER: Hang on a second.

MR. ROLFES: -- have the actual number of workers that were monitored. That was actually one of the documents that was also sent in to us by the petitioners as well, so...

DR. ZIEMER: Okay. Dr. Fuortes, did you have a comment on that?

DR. FUORTES: Well, the -- the document that I have labeled 80508, final SEC 00068, on pages 29 through 31 would be -- the numbers are 29 through -- yeah, 31, but the numbers of workers monitored for tritium and badge -- and -- and those are -- are rather telling tables, I think.

DR. ZIEMER: Additional comment, Mark? Did you -- Phil, did that answer your question?

MR. SCHOFIELD: Yeah, I think for now it did.

DR. ZIEMER: Board members, you've had the -- the document for perhaps a couple of weeks. It's -- it's not obvious to the Chair whether or not you're at a point where you're prepared to vote on the recommendation, or if you require additional input, if we need any

additional work from our contractor. Josie?
MS. BEACH: I'd like to entertain the idea of starting a workgroup for this -- for Pantex.
DR. ZIEMER: A workgroup that would address specifically the SEC petition itself, versus the site profile. Is that what you --
MS. BEACH: I believe we need to look at both.
DR. ZIEMER: Of course looking at the petition would require, in part at least, looking at the site profile. A site profile workgroup might not be able to focus on all the SEC issues, however, so --
MS. BEACH: Is there a way to combine those two? I know we're -- we're starting to do that a bit.
DR. ZIEMER: Yes, of course, but if we set up such a workgroup we could -- we could ask it to focus on this particular petition since that is the business before us. Brad?
MR. CLAWSON: Well, and I -- I understand what you're saying there, but also, too, we have -- we haven't really set up anything to be able to even look at the site profile. I know that in the past we've been able to set up and look at the SEC, but we've also got to address because

the claimant and claimants have addressed many issues that have come out, substantially an awful lot of them with the site profile that is being used for reconstructing doses. So in my mind we've got to -- we've got to look at the -- you know, actually both -- both these things.

DR. ZIEMER: Other comments? Mark?

MR. GRIFFON: I -- I mean I would speak in support of Josie's idea to have a workgroup. I -- we -- we do have SC&A's report on the site profile (unintelligible) through their findings a number of them are sort of contradictory to what we heard today in the evaluation report, so I think we need to go through specifically -- there's some questions on tritium that the neutron question certainly leaps out of (unintelligible). We've seen this at (unintelligible) sites but we need to examine it more closely, the whole notion of extrapolating back from '94 back to '57 or 8 or whatever that time period is. We need to look at that more closely, so those two jump out at me right away.

DR. ZIEMER: Phil, another comment?

MR. SCHOFIELD: Yeah, I've got a question here

(unintelligible) just kind of (unintelligible) about the (unintelligible), how they're -- how they're going to handle that. How's NIOSH going to handle the total lack of -- I mean, you know, if you go to page 29, it says, you know, there's no records of any (unintelligible) between 1951 through 1991 evaluation period, which -- that leaves --

DR. ZIEMER: Are you talking about the whole body counts? I think they had some -- there was some Helgeson* data that was referred to. Where's Mark? Are you talking about the whole body counts versus the bioassay?

MR. SCHOFIELD: Yeah.

DR. ZIEMER: Could you clarify on the Helgeson data, was there some question on its validity?

MR. ROLFES: There -- yes, Dr. Ziemer, there were approximately -- it was in excess of 200 people that were subject to in vivo measurements in the Helgeson counter following a contamination event that occurred in the early 1990s at Pantex. This was one of the largest sets of in vivo data that we had for the individuals that were disassembling a particular nuclear weapon.

Is -- do you have a question regarding that data or --

MR. SCHOFIELD: No, not that data, I'm just a little concerned about the fact that there is none of this data. You're trying to take that data and go back and say well, these people couldn't have had this, or could have had this, when you've got nothing to show they could or could not had a level.

MR. ROLFES: Okay. There is a -- a set of bioassay data for individuals earlier on. Beginning in 1959 there were personnel that were subject to urine sampling to look for either uranium and/or plutonium in urine.

MR. SCHOFIELD: And how often were these urine samples taken? Yearly, quarterly, every three years?

MR. ROLFES: At Pantex -- at Pantex you're normally dealing with sealed components, and incidents were -- excuse me, bioassays were incident-driven. So if a high-documented air sample was measured, that was investigated and that investigation was conducted to determine whether bioassay was needed, so -- for example, back in the 1960s there was an incident where a

-- a high air concentration was investigated and it was determined that it was radon, so they followed up and did investigate the high air sample results.

MR. SCHOFIELD: Well, somebody got a snootful and it was not recorded or it was not -- they were not aware of that person, it could be several years down the road before they took a urine sample from that person. Is that what you're telling me?

MR. ROLFES: No. No, that's not all the case. For example, it would have been a couple of days. For example, another significant incident that had occurred that was a plutonium release in November of 1961, and the individuals were evacuated from the cell where this incident had occurred because of a high -- high air monitoring result, I believe. They also knew that they had basically bent a part of the pit off and knew that they had an incident right away. Those individuals were subject to bioassay within 24 hours, I believe, and then they were also resampled several times after that had occurred -- after the initial occurrence.

DR. ZIEMER: Thank you. Brad Clawson?
MR. CLAWSON: There was also, as you say, incidents and so forth. One of the things I find interesting about this plant is also there's an awful lot of national security stuff there. There's also an awful lot of things that came in in the earlier years that wasn't considered issues. How can I --
DR. POSTON: Brad, can you speak up? I can't hear you.
MR. CLAWSON: -- trying to find (unintelligible) --
UNIDENTIFIED: Dr. Ziemer, he's not audible.
DR. POSTON: I can't even hear you over here.
MR. CLAWSON: Ca-- hello? One -- one of my issues are is that we had a lot of items that were produced earlier and then came back that were corroding, so forth. You say that they were in sealed containers, but actually these were breached, and the -- the process, from what we understand, was that this was not an issue, it was to be able to take care of them. But the monitoring in those early years I -- there's an awful lot that is still missing there, and to be able to capture all this --

you know, I -- I guess I go back to what the -- the petitioner said about yeah, it's great to be able to look at this at a picture of time right now of the safety requirements we have now here and everything else, but back in the earlier years it was not there. And for you to be able to back-extrapolate a lot of this, I -- I'm thinking that there's some missing and I just -- just seems a little bit like there's quite a bit missing there.

DR. ZIEMER: Of course that's the -- that's the whole point of bounding is because of that issue, so that's certainly what they're trying to do. Let's see what else -- Mark, you have a comment?

MR. GRIFFON: Yeah, I just -- I -- I think a lot of this is -- the premise of a lot of this evaluation report is that the program was running effectively. I think Lars was correct in that. But I -- I wanted to ask specifically here if you -- you talk about incident-driven bioassay. Prior to 1990 there were no bio-- no workers, according to this Table 6-1, no workers monitored for uranium, thorium or plutonium. But then after 1990 when -- I mean

part of this is different regulations, too. I understand that. But after 1990 there's a number of workers, especially for uranium, you go up to 431, 239, 90, 138 -- doesn't seem to be incident-driven at that point. Can -- can you just explain the difference and -- and would those -- I mean those seem like they were looking for more chronic-type exposures and couldn't they have happened earlier on, even though the regulations were different?

MR. ROLFES: It was due to changes in the Department of Energy's monitoring and dose reporting requirements, which changed over time.

MR. GRIFFON: But -- but -- but the point being, if -- if everything was sealed and there was no potential at all for exposure, they wouldn't have been required in 1990 to monitor anyone 'cause they wouldn't have been likely to exceed 100 millirem CEDE for uranium unless there -- there was a potential. Obviously they saw a potential. It just started in 1990? That's my question, I guess.

MR. ROLFES: Oh, okay. There -- there was some potential for exposure -- for internal

exposures. However, it was very, very low. The potential for internal exposures typically was greater than for a disassembly than for an assembly. There was a large focus in the earlier years to conduct assembly operations rather than disassembly. And you can see as the number of disassemblies increased and the potential for exposure increases, so does the internal exposure potential as well, so...

MR. GRIFFON: And is that -- is that -- do you change your approach -- I mean it -- that doesn't all happen in 1990, obviously. Did -- did you change your approach to bounding when disassembly scaled up or -- or -- I'm not sure I understand exactly how you treat that as far as a dose reconstruction standpoint. In other words, you know, is there a higher potential once disassemblies scaled up and therefore you give a higher level to unmonitored workers, I -- I haven't read all the detail, either, I want to say. I'm just kind of asking this as I'm looking at this table, yeah.

MR. ROLFES: Okay, I understand what you're asking. For example, a production technician would have been one of the individuals who

would have had the highest potential for internal exposure. Some of the individuals that were working at the firing sites, as well, would have had the highest potential for internal exposures on the site. For example, other people -- for example, like guards -- wouldn't have had typical potential for internal exposure or external exposure on site.

MR. GRIFFON: So tho-- those high potential folks, what -- what would the protocol currently call for as far as assigning internal dose to say uranium, as an example?

MR. ROLFES: The example -- the sample dose reconstruction that we had prepared --

MR. GRIFFON: That has it? Okay.

MR. ROLFES: -- those intakes would have been the highest intakes for someone who was unmonitored, and that's described in the Technical Basis Document for the Pantex Plant.

MR. GRIFFON: And is that just the 40 DAC-hours per year or...

MR. ROLFES: The 40 DAC-hours was based on the reporting requirements, I believe, beginning in late '80s or early '90s. I'd have to take a look back at the --

MR. GRIFFON: All right. I'll have to look closer at the numbers, too, but thank you.

DR. ZIEMER: Actually the -- things did change rather abruptly because those dates coincide with the end of the Cold War and the -- the memos -- the Presidential memos on weapons would dictate -- I don't know the contents of them so I can talk freely, I guess, which dictate numbers of weapons, we do know that -- is -- when the Berlin Wall went down and there was a massive move to disassemble weapons versus building weapons and weapons were coming back to Pantex in large numbers, starting in about '90 or '91, so most of the work after '90 had to be disassembly. There's very little assembly after that.

MR. GRIFFON: So -- yeah, I -- I don't know, I know that's a regulatory cutoff, but if it's also a production kind of cutoff in time, then that would make sense, yeah.

DR. ZIEMER: Well, I think it's based on --

MR. GRIFFON: Yeah.

DR. ZIEMER: -- on the so-called Presidential memos or memorandum that dictate to the agency how many weapons that it has to maintain, and

those numbers changed drastically once the Berlin Wall went down and the presumed Cold War ended. And something similar was happening in the former Soviet Republics as well.

Other comments? Let -- let me ask if -- is there a general sentiment that we should have a workgroup look at this particular site in more detail and answer some of these questions? Phil?

MR. SCHOFIELD: (Off microphone) (Unintelligible) (on microphone) little harder than it has been so far.

DR. ZIEMER: I'd like to ask John Mauro to remind me, did you -- did SC&A develop a matrix on this already based on your report, or --

DR. MAURO: We only have the site profile review. We have not transitioned to an SEC petition process --

DR. ZIEMER: No, no, just in general on the site profile, did you develop a matrix already on that?

DR. MAURO: I am going to look over to Joe Fitzgerald -- the answer is no.

DR. ZIEMER: So you have the -- you have your findings but not in matrix form --

DR. MAURO: Correct.
DR. ZIEMER: -- and no -- so this hasn't been looked at in any detail with (unintelligible) --
DR. MAURO: And -- and as you know, con-- converting a -- a site profile to a matrix is fairly straightforward. And in the process, as we have done in the past, we would probably take a -- at least an initial run at identifying those site profile issues that might be considered SEC issues --
DR. ZIEMER: Right.
DR. MAURO: -- if you would like us to do so.
DR. ZIEMER: Right. I think what I'd like to do this morning -- or this afternoon, it's afternoon here. Actually it's almost evening in Indiana, the center of the universe. But -- but I -- I'd like to see if -- if the -- if the assembly wishes us to examine this further, we will spell out details of a workgroup during our working session. But if someone wishes to make a general motion, I'd be pleased to hear it at this time. Josie.
MS. BEACH: I'll go ahead and make that motion. I'd like to make a motion that we assemble a

workgroup for looking at the Pantex Plant in more detail.

DR. ZIEMER: Is it --

MR. CLAWSON: (Off microphone) (Unintelligible)

DR. ZIEMER: And seconded. Discussion?

(No responses)

We do not have a Pantex workgroup, in -- in part because some of the Pantex things were delayed for other reasons anyway and we --

DR. POSTON: Ah, yes. Oh, yes.

DR. ZIEMER: Yes, and --

DR. POSTON: Bite your tongue.

DR. ZIEMER: Any -- any discussion? Anyone wish to speak against the motion or for the motion, or in general?

MR. GRIFFON: I'll speak for the motion, but I also -- maybe a friendly amendment if -- if they consider this a friendly amendment, would be to add that we also task SC&A with reviewing the evaluation report and the petition itself, along with their site profile they've already done.

DR. ZIEMER: Well, what I'm suggesting is that we do our tasking on Thursday --

MR. GRIFFON: Okay. Okay.

DR. ZIEMER: -- so let -- let's keep this --
MR. GRIFFON: Let's leave it at that.
DR. ZIEMER: -- separate --
MR. GRIFFON: Okay, that's fine.
DR. ZIEMER: -- because we -- we have some other tasking issues since the -- the fiscal year has ended and we have some issues relative to our contractor and how to proceed and go forward, so we'll have to deal with that separately --
MR. GRIFFON: Okay.
DR. ZIEMER: -- as far as tasking. But the motion is to have a workgroup to evaluate further the Pantex site profile and SEC-related issues -- I think is how I would interpret the motion, and it's been seconded. Further -- further comments or discussion?

(No responses)

All in favor, aye?

(Affirmative responses)

Opposed, no?

(No responses)

Abstain?

(No responses)

Motion carries, and during our workgroup (sic)

we will --

DR. BRANCHE: Are you abstaining?

DR. POSTON: I did.

DR. ZIEMER: Oh, I'm -- I didn't hear that.

DR. POSTON: It was pretty clear.

DR. ZIEMER: Okay, sorry, John -- one abstention.

During the work session Thursday we'll establish membership and -- and a charge for this particular workgroup.

NIOSH PROGRAM UPDATE

Let us proceed now with the program update. Larry Elliott is going to present that. Larry, pleased to have you again to update us on the work of NIOSH.

MR. ELLIOTT: Good afternoon, members of the Board and members of the public. It's very nice to be here in southern California, much cooler here than back home in Cincinnati where it's 95 and the heat index is over 100 today, so thank you for having your meeting here. As usual we want to walk you through the program status as of to date, and I would note for you that these statistics that are presented in this presentation are -- show only

a month and a half progress since your last Board meeting, so I would caution you in that regard that there's some change, and I'll make note of that for you. In some instances there's not a lot of change from your previous presentation in June.

To date, as of July 31st, 2008, as shown in this slide, 27,656 cases have been referred to NIOSH for dose reconstruction from the Department of Labor, and NIOSH has returned 76 percent of those, or 21,128 cases. Now we can break those down into further subsets -- 18,165 were returned with a dose reconstruction report to DOL; another 748 cases were retrieved from NIOSH by DOL, pulled from NIOSH is case status, and so we no longer have any activity on 748. There are 2,215 cases that are currently pulled from the NIOSH population of claims for determination of class eligibility within Special Exposure Cohort classes. Twenty-two percent, or 6,113 cases, remain at NIOSH for dose reconstruction. And I'd point out that of those, 11 percent or 683 cases actually have a dose reconstruction report and we're awaiting the claimant to provide us with an indication

that they have no further information and we can move it on. 415 cases, or two percent, have been administratively closed, and I'm sure the Board knows this but for a reminder to the public, when we speak of administratively closed cases, that is a situation where the claimant or claimants have decided not to provide us with a indication that they have no further information and we are waiting that indication to happen in what we call an OCAS-1 form, so at any point in time any one of these administratively closed cases can be reopened if the claimant desires to send us an OCAS-1 form, or they desire to send us additional information for consideration in the dose reconstruction.

In this pie chart these -- is a summary of the case status, and I would particularly note here for you the ones that -- that we at NIOSH keep an eye on are those that are active and those that are pended. Right now that -- that's your -- the total of the 6,113. But pended means that there's some issue associated with the claim that we can't move it forward. We're working either with DOL to address some issue

regarding the demographic information about the claim, or there's a technical issue that is awaiting resolution before we can move the claim on. So we're monitoring those pended cases, and I can tell you that there's -- this -- if you look at this pie chart compared to the one you saw in June, you'll see a decrease of 494 cases that we've moved on. We've taken them out of pended and put them into an active status to move them on forward.

Of the 18,165 dose reconstructions that we've returned to DOL for adjudication, 34 percent, or 6,109 have had a probability of causation of greater than 50 percent, leaving 66 percent, or 12,056 cases which had a probability of causation of less than 50 percent and were found to be non-compensable by the Department of Labor.

In this bar graph we present to you the breakdown of probability of causation in decile increments up to the 50 percent bar, and you can see here that -- how this distribution fol- - unfolds across these probabilities of causation.

Of the 6,113 cases that currently remain at

NIOSH for dose reconstruction, we have 2,606 that were assigned to a health physicist as of July 31st; 683 claims, as I noted for you earlier, had a draft dose reconstruction report with the claimant and NIOSH is awaiting the return of the OCAS-1 before we can move it on; 2,824 cases have not been assigned to a health physicist for dose reconstruction. They were in some process of development or awaiting their turn in assignment to dose reconstruction. 3,849 cases, or 63 percent of these, are older than one year, another metric that we monitor very closely.

And speaking of the oldest claims, if we look at the first 5,000 claims that were sent to NIOSH for dose reconstruction, we've completed 3,647 dose reconstruction reports and provided them to the Department of Labor. We have 71 cases that are currently administratively closed. We have 252 of the first 5,000 that have been pulled by DOL for some reason so they were not active in dose reconstruction. 346 cases in the first 5,000 have been pulled for SEC class determinations. We have four dose reconstructions -- reports with claimants, and

this leaves -- well, we have 647 of the completed dose reconstructions that came back to us from DOL because of one of our Program Evaluation Reviews, or some change to the dose reconstruction that was required, leaving 33 claims that are still actively -- still active in our system of the first 5,000 and awaiting our attention.

I've broken those down. I've taken a -- in a little bit step forward here and trying to give you a better sense of what's going on with these 33 claims. I think I reported on 33 at the last meeting and I wanted to give you more insight into what's happening with these oldest cases that are in our hands.

Nineteen are in a pending status -- that means that they're pended for some reason -- and as you see in the first three instances here, we're waiting DOL to provide some missing information that's necessary and so DOL is developing that information.

Eight are non-Special Exposure Cohort cases that are pending some dose reconstruction methodology. They come from a unique site and we haven't a dose reconstruction approach

developed at that point.
Five are SEC cases pended before the designation occurs. They're awaiting the Secretary's designation to happen, and as soon as that happens we'll turn those five over to the Department of Labor.
One is an SEC petitioner instance where we're -- the claim is pended because the -- the SEC petitioner has asked us to pend the claim awaiting the conclusion of the Board's deliberations.
DR. BRANCHE: Excuse me. There's someone who's participating by phone. We really do need you -- everyone participating by phone to please mute your lines. If you do not have a mute button, then please use star-6. But someone's using some sort of grinder and we can hear that, and that is quite an interruption to everyone, including here in -- in the meeting room. Thank you.
MR. ELLIOTT: Thank you. We have two claims, of the 19 in pending status, that are awaiting modifications to a Technical Basis Document or a technical basis approach for dose reconstruction.

Of the 33 claims awaiting dose reconstruction, a little bit further detail here, 14 are in active status, and you can see the breakdown here. Three, there has been no change in the case status since we first received them. They represent another unique exposure situation or site for which we have not yet determined that we cannot reconstruct the dose, so we're still evaluating that.

Three were pulled and were then returned to us, reinstated by DOL, and we are now working those three.

In four cases the Technical Basis Document has been resolved and so now we're using that Technical Basis Document approach to complete those four.

And in four others that are in active case status, we have just received new cancer-related information from the Department of Labor concerning those -- those cases.

These 33 claims represent 27 distinct sites.

In this -- in this graphic we present to you, by quarter -- fiscal quarter, the claims that have been received from the Department of Labor at NIOSH is shown in blue. Those draft dose

reconstruction reports to claimants are shown in green, and the final dose reconstruction reports to Department of Labor are shown in red. On the right-hand side of this graphic you'll see that there -- the red and the green line -- or yellow in this room, it looks to me like -- dips below the blue line about the third quarter in 2007, and that's to be noted here because we started again seeing a backlog develop.

Then you'll see later on, about the second quarter of 2008, the red and green line move above the blue line and so we're work-- we're back to a production rate where we're working off our backlog again and we're above what DOL is sending us. So this is just some -- the trend analysis that we use this graphic for.

If we look at all claims at NIOSH and we place them in the 1,000 increments as shown in this bar slide, it'll give you a sense -- if we look at the colors here of blue being those cases that are completed, red those cases that have been pulled from us by Department of Labor, and then a mustard brown color are the active cases, green is the SEC cases that have been

pulled from that particular 1,000 increment, yellow are the cases that are pending for some reason, and cases that are administratively closed are shown then in purple.

As you know, we -- when we identify a methodology issue that results in a change in our technical approaches that might increase the dose for an individual set of claims or claim, we conduct a Program Evaluation Review and this results in what we call reworks where we've already finished a dose reconstruction but, because of a change in our methodology that might increase the dose, we revisit all of the claims that were found to be non-compensable by the Department of Labor and evaluate them against that change. As you see in this graph, we see a -- a large uptake in the number of returns late in the third quarter of 2007. This is primarily due to the number of PERs that we had in action and basically the super S Program Evaluation Review being a very large contributor to the number of reworks that we had to look at. We've returned 4,833 out of 8,140 reworks that have been sent to us.

Reporting on the status of our interaction with

the Department of Energy requesting information about dose, we have 262 outstanding requests, and of those 82 are greater than 60 days. As you know, we follow up every 30 days with our Department of Energy colleagues to determine the status of our requests and we push to understand why they have not found information or what is the problem in providing information. And so these are your numbers and if there is an interest I can provide further detail about where these 82 or the 262 are housed in the DOE system.

With regard to technical support and dose reconstruction activities on the Atomic Weapons Employer sites, we have generated a -- two documents, Technical Basis Document 6000 and Technical Basis Document 6001, and we have added a number of site-specific appendices that speak to unique exposure situations at certain AWEs. We've completed 15 of those and we have one more of these appendices in review. We have no other appendices currently in development.

Site profiles for Atomic Weapons Employers that refined uranium is couched in -- and thorium is

couched in TBD -- or Technical Basis Document -- 6000, and there are six site-specific appendices that have been completed for TBD-6001.

I mentioned Program Evaluation Reviews earlier. There have been 32 Program Evaluation Reviews issued. These affect approximately 14,000 claims. We have conducted a large number of these reviews and we've seen 249 claims change from a non-compensability status to a compensable status based upon a change in methodology and our re-review of the dose reconstruction. We've seen 7,943 claims withstand the review but not experience a change in compensability, and there are 6,025 claims awaiting evaluation in our -- from these Program Evaluation Reports.

I'd note for you and for the audience that these numbers are inflated because in many instances there are double counts that go on. A claim may be affected by more than one Program Evaluation Review, and so that will increase or inflate the numbers that you see here.

Special Exposure Cohort classes, there have

been 33 classes added since May of 2005. Nineteen, or 58 percent, have been added through the 83.13 process and 14, or 42 percent, have been added through the 83.14 process. This represents classes of workers from 27 sites, and it also represents 2,215 potential claimants -- or claims, excuse me. My last comment is not based upon a slide in your presentation but I'm sure there's interest in knowing where we stand at NIOSH with regards to our technical support contract on dose reconstructions and Special Exposure Cohort evaluations. And all I can tell you at this point in time is that we have now entered our eleventh contract modification to extend the contract, awaiting the award of the new procurement. I can say that the award must be made in accordance with the stated evaluation criteria that can be found in Section M of the RFP, and that award will be made to the responsible offeror who is submitting the proposal that is the best value for the government. And so I would offer that as where things stand right now. They're in a negotiating process to determine what is the

best value for the government.
I also know that the Board is facing some decisions with regard to what other things it can place before its technical support contractor for review. Just this past week we issued a new implementation guide on surrogate data, IG-004, so that's certainly -- I would offer as one important procedural document for you to examine. You also have IG -- Implementation Guide -- 003 that has not been reviewed or evaluated as of yet. There are several other new Technical Basis Documents and perhaps a procedure or two that have not completely gone through the process that are just new, and so if the Board is interested we can certainly provide a list of these new documents.
Additionally we have tasked Stu Hinnefeld and our IT support team with pulling together the available pool of dose reconstructions, and you have another set to sample from, so I'm happy to answer any questions, if there are any.
DR. ZIEMER: Thank you very much, Larry. With respect to the issue of the -- your contractor and the workload and so on, I'm curious -- as I

look, for example, at slide six where you indicate that 2,600 or so cases are currently assigned to health physicists for dose reconstruction, under the current sort of situation, how many health physicists are actually available to do those 2,600 -- roughly -- dose reconstructions? Is it different --

MR. ELLIOTT: That's an --

DR. ZIEMER: -- than it was when things were operating --

MR. ELLIOTT: Oh, yes, it's much different than it was when we were in our heyday and -- our high water mark was 2006.

DR. ZIEMER: I mean like is this one person who's going to be working for --

MR. ELLIOTT: No --

DR. ZIEMER: -- 20 years or --

MR. ELLIOTT: -- no --

DR. ZIEMER: -- ten or a hundred? Give a -- can you roughly tell us --

MR. ELLIOTT: I would say we're bef-- in 2006 there were -- when you ask about health physicists working on the program and you ask about health physicists strictly working on dose reconstructions, two different -- two

different numbers --

DR. ZIEMER: Yeah, I --

MR. ELLIOTT: -- and I take it you're wanting the last --

DR. ZIEMER: -- I'm -- I wonder --

MR. ELLIOTT: -- how many actually --

DR. ZIEMER: -- when you say 2,600 cases have been assigned to health physicists, you know, how big a group is that? I'm trying to get a feel for -- does one person have hundreds of cases to do or just a few or what?

MR. ELLIOTT: One -- I -- I don't have an answer for that right -- right now. I'd hesitate to give you an answer off the top of my head. I can say it's probably in the ball park of a hundred or so health physicists who are engaged -- that includes staff on -- you know, OCAS staff as well as our contract staff. Other health physicists --

DR. ZIEMER: It becomes a pretty heavy workload then --

MR. ELLIOTT: Yeah, other health physicists are engaged in evaluating SEC --

DR. ZIEMER: Right, right.

MR. ELLIOTT: -- petitions, others are engaged

in developing technical basis approaches, so it fluctuates. We see health physicists move from task to task, too, depending upon their -- the needs and availability of their efforts, so -- but I -- I'll try to get you an answer.

DR. ZIEMER: I was trying to get a feel for what the turnaround time -- it certainly has got to be longer now than it would have been otherwise, I would guess.

MR. ELLIOTT: Well, there's a different question.

DR. ZIEMER: They're more efficient now, too, perhaps.

MR. ELLIOTT: Turn-- turnaround time -- we are more efficient, and we have se-- where we have a Technical Basis Document established, where we -- our approach, our reconstruction approach is established, we're seeing claims go through those kinds -- from those sites go through dose reconstruction in 120 days or less. Where we don't is the problem.

DR. ZIEMER: Yeah.

MR. ELLIOTT: You know, those are the claims that I'm most focused on and I have staff that are focused on what can we do to move those

claims through the system that we don't have a current approach developed for.

DR. ZIEMER: Thank you. Josie Beach, comments?

MS. BEACH: Yeah. Larry, I was wondering if you could tell me, if I want to go out and look at that new document, IG-004 --

MR. ELLIOTT: Yes.

MS. BEACH: -- where would I find it?

MR. ELLIOTT: Well, you would have received -- you did receive last week a web site update announcement, and in that web site update it'll tell you the URL where you go to. But in this instance you can go to dose reconstruction document -- dose reconstruction, on the right-hand tool bar, hit that, and you can find all of the -- it'll have TBDs, Implementation Guides, or you can search by site. This is a -- a document that's used across any site where surrogate data is used, so it would not be a site-specific document.

DR. ZIEMER: Dr. Melius.

DR. MELIUS: (Off microphone) (Unintelligible) (on microphone) starting with the -- the contract, just to follow up on -- on Paul's question, to the extent that you can answer

this. Is what's contemplated in the new contract, when -- when it is awarded, would that increase productivity --

MR. ELLIOTT: Oh, yes.

DR. MELIUS: -- in terms of --

MR. ELLIOTT: Yes.

DR. MELIUS: Okay. So -- so we're still in sort of a slowdown --

MR. ELLIOTT: We --

DR. MELIUS: -- or is that a way of (unintelligible) --

MR. ELLIOTT: -- we are hobbled right now.

DR. MELIUS: Okay.

MR. ELLIOTT: We are hobbled in our ability to achieve a high rate of production because we're under a contract modification to extend for like six weeks at a time.

DR. MELIUS: Yeah.

MR. ELLIOTT: And our technical support contract team is made up of subcontractors and --

DR. MELIUS: Right.

MR. ELLIOTT: -- once they buy time from them, that time's committed, but you know --

DR. MELIUS: Okay.

MR. ELLIOTT: -- they're limited on how much time they can buy.

DR. MELIUS: Yeah.

MR. ELLIOTT: The other problem that we have is -- is, you know, when this -- we started seeing a backlog occur in that one slide that I pointed out --

DR. MELIUS: Yeah.

MR. ELLIOTT: -- to you with the -- with the bar -- the line graph, continuing resolutions kill us --

DR. MELIUS: Uh-huh.

MR. ELLIOTT: -- because we're only allowed to spend at a daily rate.

DR. MELIUS: Yeah.

MR. ELLIOTT: And so, you know, even though we have more work to do, we can't infuse more money to get the work done under a continuing resolution, so we're ha-- we're going to face that at the -- perhaps at the start of this new fiscal year, plus we're not seeing a contract award. So both of these are -- are the main dynamics that I point to that cause us to be hobbled in our efforts to -- to get back to a production rate that would -- you know, we

would all be more satisfied with.

DR. MELIUS: And can I assume that that hobbling also would apply to SEC reviews and other parts of the pro-- site profile --

MR. ELLIOTT: Yeah, there's only --

DR. MELIUS: -- TBD --

MR. ELLIOTT: Yeah, we're limited in --

DR. MELIUS: -- (unintelligible) --

MR. ELLIOTT: -- we're limited in the resources we have and we try to spread them as best we can to -- to address the priority issues.

DR. MELIUS: Okay, thank you.

MR. ELLIOTT: So yes.

DR. MELIUS: Your -- your -- I have a number of other questions, mostly clarification. Your last slide on the SEC exposure cohort classes represents 2215 potential claims. What does 2215 refer to? Is that cases that are --

MR. ELLIOTT: Cases, actual cases.

DR. MELIUS: That have been sent from DOL to -- to NIOSH?

MR. ELLIOTT: Yes.

DR. MELIUS: So it's not all SEC -- not all the cases have been covered by an SEC because those would be handled directly by --

MR. ELLIOTT: Yeah.
DR. MELIUS: Okay.
MR. ELLIOTT: We don't -- these are only cases that come away from our claim population at NIOSH.
DR. MELIUS: Okay.
MR. ELLIOTT: That's all they are.
DR. MELIUS: Yeah, it ju--
MR. ELLIOTT: Sorry.
DR. MELIUS: -- it seemed low and I -- that's what I thought it was and --
MR. ELLIOTT: Yeah, it's higher than that --
DR. ZIEMER: -- SEC --
MR. ELLIOTT: Pardon me?
DR. ZIEMER: It would not cover all SEC claimants.
DR. MELIUS: Yeah -- no, no.
MR. ELLIOTT: No, we -- those cla-- these are claims that NIOSH had in its possession when a class was established. There are other claims that may come to Department of Labor after a class has been established that NIOSH never sees.
DR. MELIUS: Some questions on the first 5,000. What does it mean when it says that an employer

is missing or questionable, particularly missing? I find -- I find it hard to believe an employer would be missing, but --

MR. ELLIOTT: Department of Labor is responsible for developing the demographics about a claim, those things that are essential to process the claim.

DR. MELIUS: Okay.

MR. ELLIOTT: And in this instance, the -- in one instance the employer -- they don't -- they don't know who the person worked for.

DR. MELIUS: Oh, okay.

MR. ELLIOTT: So it's a survivor situation.

DR. MELIUS: Yeah.

MR. ELLIOTT: They know their parent worked at a facility, but they're not sure which one. And in the other one, the employer's questionable -- all we can say is that DOL is still determining whether or not employment is eligible.

DR. MELIUS: Uh-huh. Okay, that sort of clarifies that. One of the things that I think would be helpful as I look at your 11th slide, the cases completed by NIOSH tracking number -- is that -- cases by tracking number, is to

start -- I mean I think you -- there seems to be a significant number of pending cases in the first -- you know, 5,000 to 10,000 -- 5,001 to 10,000 and so forth, and it'd be helpful I think to know how those broke down by the categories that you just provided, how many of those are reworks, how many are cases that haven't been gotten to and -- and so forth 'cause I -- I think it's --

MR. ELLIOTT: So you're interested in the -- let's say the first 10,000 pended cases --

DR. MELIUS: Yeah, pended case of --

MR. ELLIOTT: -- what are they pended for.

DR. MELIUS: -- what is the breakdown by the -- the slides that you presented here. I was just asking about the employer missing, et -- et cetera. I also think it would be useful to understand this -- and this goes back to the question I asked a couple of meetings ago -- was on the reworks, to have some idea what -- what's the delay on them 'cause the way you present it now it's number in, number out. It's not clear how long those stay in -- in NIOSH. Understand that when they --

MR. ELLIOTT: Yes.

DR. MELIUS: -- go into your --
MR. ELLIOTT: You would like to know how long the rework -- average rework takes.
DR. MELIUS: Yeah, how long -- of those reworks that haven't been returned, how many are older than a year or something like that, if any. I have no --
MR. ELLIOTT: I can provide that --
DR. MELIUS: -- no idea.
MR. ELLIOTT: -- I can't do it today, but --
DR. MELIUS: I'm not asking for it today. Finally, my understanding -- I believe this came up at the last meeting that I was not able to attend -- was the issue of -- my understanding is that the interview has been changed, the basic claimant -- the CATI interview has been -- is that -- my understanding correct that that's been modified in some way?
MR. ELLIOTT: We are -- we are submitting to the Office of Management and Budget our package for approval to utilize this questionnaire instrument a-- this'll be the -- I believe this is the third issuance or request for approval that we've gone into.

DR. MELIUS: Uh-huh, okay. As I -- as I recall, the -- the Board early on had pointed out a number of significant concerns about the interview and were told that that could not be changed because it couldn't go back up to OMB, that you were -- basically thought that would be too time-- time-consuming and not a use -- good use of resources, so I was a lit-- little surprised to see that it had been modified more than once and, far as I know, it's the first the Board had heard about this. And -- and --

MR. ELLIOTT: Well, OMB -- OMB approval is only for a specified amount of time.

DR. MELIUS: Right.

MR. ELLIOTT: Each time it expires, we have to -- in advance of the expiration we submit a package for approval and we have -- in this package we have made some changes that address some of the issues that -- that have been brought out in the Board deliberation.

DR. MELIUS: Uh-huh. Well, it would have been helpful for the Board to be involved in that. In fact, I would question whether or not you're obligated to invite -- to involve the Board in that, I --

MR. ELLIOTT: I don't believe we're obligated to invite the Board to be --
DR. MELIUS: Well, I think any --
MR. ELLIOTT: -- involved in that.
DR. MELIUS: -- significant change in --
MR. ELLIOTT: We've heard the Board --
DR. MELIUS: -- those procedure --
MR. ELLIOTT: -- we've addre-- we've addressed the issues that we felt were paramount and pertinent to address at this point in time. There will be a public review comment, as there has been in the past --
DR. MELIUS: Uh-huh.
MR. ELLIOTT: -- on each of these OMB packages and -- and as we have done with rule-making, that is the opportunity for the Board to opine about -- or individual members of the Board to opine about the package itself.
DR. MELIUS: Well --
DR. ZIEMER: I might insert here that the procedures review workgroup is -- in its processes, and Wanda can comment on this further, has -- the issue of the CATI has come up a number of times and the fact that the old interview was expiring, so I know the

workgroup's aware of that and the fact that when -- when NIOSH has its proposed new interview, the Board in fact will have the opportunity, as we did on the -- as we did on the Part 8123s --

MR. ELLIOTT: On the rule-making.

DR. ZIEMER: -- on the rule-making, to comment on what is being proposed. Wanda, you may have some additional comments on that.

MS. MUNN: I was just going to comment that the procedures workgroup has indeed spent an extensive amount of time with the procedures that control what happens in the CATI interview, and it's been discussed for a matter of months. More than one item has been brought to the attention of both the workgroup and NIOSH. We've had considerable input from claimants with respect to their concerns and NIOSH has accepted all of the information that the workgroup discussions have provided.

MR. ELLIOTT: We'll certainly notify the Board and the procedures workgroup when the package is going forward and public comment opportunity exists.

DR. ZIEMER: Mr. Presley.

MR. PRESLEY: (Off microphone) Larry (unintelligible) 249 (unintelligible) claims that have increased to more than 50 percent (unintelligible) the majority of those (unintelligible) that have to do with the super S rework or do you know? I know that was a biggie for y'all.

MR. ELLIOTT: I can give you the specifics on that, Mr. Presley -- indulge me for a moment till I find my notes.

(Pause)

For a while we were reporting to you there were 157 that had changed POC from less than 50 to greater than 50, and those 157 -- 154 were lymphoma and three were Bethlehem Steel. And now you're -- you're correct that we've achieved 249 instances where the claim changed to compensability, and so the difference is that 77 are super S-related, five are related to the Paducah Program Evaluation Review that was conducted; one is a LANL-related issue, eight are related to Blockson, one is a Rocky Flats. So that's the breakdown of the 249.

MR. PRESLEY: Thank you.

DR. ZIEMER: Mark.

MR. GRIFFON: (Off microphone) (Unintelligible) (on microphone) on the -- the CATI question. Is thi-- this change you're putting forward, is this the first change to tha-- I've been confused about this a little in the past, answers I've gotten. Is this the first change to the -- the phone questionnaire, phone interview --

MR. ELLIOTT: This --

MR. GRIFFON: -- form, or have you done -- is this revision --

MR. ELLIOTT: This is the --

MR. GRIFFON: -- two or three or --

MR. ELLIOTT: -- I think it's -- I said third, but this may be the second. I have to check my -- my notes. It's the second or the third package we've submitted to OMB for approval. I believe that this -- this current modification addresses the input from the procedures workgroup that we've had. I don't believe the prior one did.

MR. GRIFFON: Okay.

MR. ELLIOTT: I don't believe there's --

MR. GRIFFON: 'Cause we -- we -- we didn't --

MR. ELLIOTT: -- been a change prior --

MR. GRIFFON: -- see that middle step one, either, and I guess -- at one point I thought there was a different questionnaire in some of the claims files that I was looking at, and Stu said that no, in fact -- he agreed with me, and the next meeting he -- he changed his response, so I was just -- wanted to get a clarification on that.

MR. ELLIOTT: I'll have to get back to you on that.

MR. GRIFFON: Okay.

DR. ZIEMER: Other questions? Robert, do you have an additional question?

Okay, thank you very much, Larry, appreciate the input, as always.

We're a little ahead of schedule, but I think we'll go ahead and take our break now, so let's break till 3:00 o'clock, then we'll resume.

(Whereupon, a recess was taken from 2:36 p.m. to 3:00 p.m.)

DR. ZIEMER: We will resume if you'd please take your places.

DR. BRANCHE: I have one announcement, and that is that the hotel has been willing to -- has stated a willingness to provide lunch with two

salads, a pasta or a chicken entree, brownies, cookies and tea for a flat rate of $14 tomorrow and Thursday. If you think that that's something that may be appealing to you, at least somewhat generally, would you please let me know by a show of hands?

Okay. All right. Thank you very much.

DR. ZIEMER: Since we're a little bit ahead of schedule and I want to keep -- I want to keep the SEC petition parts of the agenda pretty much on time schedule in case there are phone petitioners present, so we've asked that the Department of Labor presentation, which is on the schedule for tomorrow morning, be moved up. This is the second meeting in a row we've done this on you, Jeff. Maybe you'll be prep-- really prepared for moving up, but we're -- we're pleased that you're willing to do that. So here's Jeff to give us the update from the Department of Labor.

DEPARTMENT OF LABOR UPDATE

MR. KOTSCH: Good afternoon. It may be better that I'm not -- or that I haven't looked at this thing recently, so...

This will be the update for the Energy

Employees Occupational Illness Compensation Program Act for -- through September 2008. Actually a lot of this data -- well, it varies. It's at the bottom, like this chart is -- is as of August 24th, 2008. Now some of this is repetitious for the people that come to all these meetings, as well as the Board members, but for those of you who aren't, hopefully it's of -- of some use to you.

And the other caveat -- not caveat, but when we talk about cases and claims, there's a case for every employee but there may be more claims because there were cert-- certain cases have survivors, in which case there may be one or more survivors, so that's why the number of claims will always be greater than the number of cases.

Part B became effective in July 31st, 2001, and this is the part of the program that we deal with here. It has to do with cancer -- cancer claims, claims for silicosis, claims for beryllium disease. We've had 63,145 cases for 92,457 claims, and 41,534 of these are cancer cases, and 27,705 have been referred to NIOSH. Again, the numbers are a little different from

Larry's numbers, just because of the time we take the snapshot.

The Part E portion of our program became effective on October 28th, 2004. This is the part of the program that we took over from the Department of Energy, the old D program. Basically it has to do with exposure to toxic chemicals. There we had 53,467 cases, 74,561 claims. And at the time of -- when -- that it became effective with the Department of Labor, we received over 25,000 cases from the Department of Energy.

In terms of compensation, we've had $4 billion total compensation, a billion of that just in the past -- or will be in almost -- in the past year. $2.59 billion was Part B payments, $2 billion for cancer claims; $292 (sic) for RECA, the Radiation Exposure Compensation Act, which is the uranium mining, milling and ore transporting. $1.24 billion have been paid as far as Part E, these are the toxic chemical claims; and $245 million in medical benefits paid for claims on both sides.

Quickly, the claims categories for Part B are cancer, chronic beryllium disease, beryllium

sensitivity, chronic silicosis and the -- the RECA Section 5 portion of the Department of Justice program.

Again, this is just who -- the eligibility, current and former employees of -- this one's part B benefits -- Department of Energy, its contractors and subcontractors; Atomic Weapons Employers, AWEs; beryllium vendors; uranium miners, millers and ore transporters who worked at facilities covered by Section 5 of RECA; and certain family members of deceased workers.

The Part B cancer case status shows 41,534 cases having 64,144 claims. Of those, 34,071 have had final decisions, which is about 83 percent; 1,804 have recommended but no final decisions; 3,901 are at NIOSH and 1,758 are pending an initial decision. That is, they're in the process of development at the Department of Labor. Again, the recommended decisions come out of our district offices; the finals come out of our -- what we call the Final Adjudication Branches, the FAB groups, at -- at which point the -- the claimants have the opportunity to ob-- object or discuss the -- the recommended decision with the -- the FAB

group.

Claims filed for cancer under Part B, any potentially -- potentially any cancer is covered under Part B if it's determined that the covered employee was a member of the SEC, was diagnosed with a specified cancer, or it is determined through a dose reconstruction conducted by NIOSH that the covered employee's cancer was at least as likely as not, 50 percent or greater, caused by radiation exposure.

This chart is just the breakdown on the final decisions for Part B. On the left side, 13,786 final decisions to approve. On the -- on the right side, 20,285 total cases to deny. The bars to the right of that give the breakdown of -- of the reasons, about 3,500 for non-covered employment, about 12,200 with probability of causations less than 50 percent, a little over 3,100 for insufficient medical evidence, a little less than 1,100 for non-covered conditions -- which would in the past have been like Part E issues, but now could slide over to the Part E side -- and 387 for ineligible survivors.

Again, for the SEC, the Special Exposure Cohorts, the employment criteria are the three gaseous diffusion plants, certain nuclear tests -- some of those were part of the initial statue -- and then the new SEC designations. Specified cancers are part of that, the 22; causation presumed, no dose reconstructions; and then HHS recommends SEC designations and if Congress does not object within 30 days, then the facility becomes an SEC. That's just a -- background on -- on the SECs.

As far as new SEC-related cases, 2,189 have been withdrawn from NIOSH for review. That's -- I'm sorry, 1,688 of those have final decisions. That's about 92 percent. 158 have recommended but no finals -- decisions; 271 cases are currently pending and 80 cases were closed. So anyway, 92 percent, like I said, of the -- of the SEC-related cases have -- now have final decisions.

As far as NIOSH referral case status, we're showing 27,705 have been referred to NIOSH as of August 24th; 20,664 have been returned from NIOSH -- again, the number there is a little over 18,000 with dose reconstructions, 23 being

reworked for return to NIOSH, and 2,588 withdrawn from NIOSH with no dose reconstruction.

And we're showing 7,041 cases currently at NIOSH. Of those, 3,915 are initial or original referrals to NIOSH; 3,126 are -- are reworks or returns.

Slide is the NIOSH dose reconstruction case status. We're showing 18,053 cases with dose reconstructions; 15, 414 dose reconstruction case-- dose reconstructed cases with final decisions, that's about 85 percent of the total; 2,264 dose reconstructed cases with a recommended but no final decision; and then 375 dose reconstructed cases pending a recommended decision by NIOSH -- by DOL. So those are ones that we have back -- we have a dose reconstruction back. They're -- the districts are just in the process of writing up the recommended decision.

The NIOSH case-related compensation, that money's paid on cases that have been -- that have dose reconstructions. As of August 20th we're showing $1 billion in compensation. That's 10,780 payees in 7,065 cases. $841

million of that was on dose reconstructed cases to 7,960 payees which involves 5,630 cases. And $230 -- I'm sorry, $213 million was added on SEC cases. That's payments made to 282 (sic) people -- or payees in 1,435 cases. So total paid cases for both Part B and E is a little under 32,000 cases; 2100 and -- 21,000 and about 200 have been Part B cases, of which 13,538 were cancer case payees; 5,849 are RECA case payees, and 1,811 were other Part B, which is primarily silicosis. 10,728 cases were Part E-related.

Just a little bit of the -- Larry talks about the -- you know, or has that one graph with the -- the cases that we transmit and the cases that are sent back. These are through -- April through July of this year. New Part B cases received by DOL -- that is, incoming to us, which could be more -- and would be more than just cases that go to NIOSH -- ranges from 398 in April, 379 May, 357 in June and 409 in July. For Part B cases sent to DOL (sic) in April, I think that was still part of the -- it may be some of the rework PER cases. April 2008 we were showing 503 cases forwarded, in May it was

364, then 318 in June and 328 in July. So right in -- we -- as far as cases to DOL, at least for like say the last three months, we're running a little over 300 per month.

As we always try to do on -- give a little information on cases that are either up for SEC discussion at the Board meeting or somehow related to some discussions here -- Pantex Plant, Part B and E claims -- I'm sorry, Part B and E cases, 1,125. We're showing 254 NIOSH dose reconstructions, 443 final decisions for B, of which 146 were approvals. We had 134 Part E approvals. And so total compensation as of August 24th for -- for both Parts B and E for Pantex being $21 million.

For the Connecticut Aircraft -- I forget the acronym -- Nuclear -- CANEL, what -- we're showing 53 Part B and E cases, four NIOSH dose reconstructions; five final decisions in Part B, three -- three of which were approvals. We had three Part E approvals and that comes out to a total compensation for both B and E of $722,500.

For Santa Susana Field Lab we show both Part B and E cases of 740, 143 dose reconstructions

from NIOSH, 175 Part B decisions; 47 approvals for Part B, 53 for Part E, for total compensation for B and E of $11 million. And I think that's it.

DR. ZIEMER: Thank you, Jeff. So -- so it looks like, at least currently, you had about 400 new cases a month that seem to be coming in to you. Could you remind us, how would that compare to, for example, a year ago or two years ago? Is this going down or is it keeping pretty level?

MR. KOTSCH: I think it's -- I -- I think it's pretty level. It might be a little -- little higher, but it's -- that -- but that would be slightly. It's been pretty static for the last -- well, for the last couple years, probably. It -- it fluctuates a little bit, depending on when we do outreach meetings and, you know, we might get a little more activity as a result of that. But other than that, it's -- that -- that's a -- not quite a baseline, but it certainly seems to be a continuing level for right now.

DR. ZIEMER: So we're talking here about 5,000 cases a year. Have -- have you or NIOSH

projected what -- sort of what the endpoint -- when or where the endpoint will be in terms of what you think are eligible cases that are out there?

MR. KOTSCH: I -- I mean I -- we don't know. We've often discussed, you know, if there is a -- if there is an endpoint. We don't perceive one right now because for the surviving -- I mean for the -- the employees that are still alive -- in fact, the ones that are still working -- there's a cancer incidence rate obviously out there that will -- at least as far as Part B -- will continue to contribute to that -- you know, if -- if they -- if they apply for -- for the -- for the program, which will continue to feed that -- you know, that -- that pipeline, basically.

DR. ZIEMER: Well, I was trying to get a feel for how many of these result simply from going out and making workers aware of the program versus simply new cancers appearing on the scene and therefore people applying.

MR. KOTSCH: And I don't -- I don't know how that would break down. I know -- I know we have always been a little surprised by the --

the -- I guess the lack of -- Hanford -- we would -- we expected more Hanford cases to be submitted early on, and maybe even continuing, and I -- and we may, with -- with the new Hanford SECs for the 200 and 300 areas, maybe that'll promote, you know, more -- more claims. I don't know. But you know, there are cases there where we -- where we don't see -- where we expect more and then there's -- you know, and then we do see, like I said, some response to -- to the outreach meetings.

DR. ZIEMER: See if there's questions here -- Dr. Melius.

DR. MELIUS: Yes, one brief question. I believe you covered in your slides my -- is it a rumor that Mr. Turcic is retiring?

MR. KOTSCH: Yeah, he got tired of coming to these meetings.

DR. MELIUS: Yeah, that -- that was my next question.

MR. KOTSCH: We had both -- both our Deputy Director, Roberta Moser -- in fact, she retired last Friday, and then Pete Turcic will be retiring effectively at the end of September, though he's not really much in the office

anymore. And Rachel Whithon*, who was our old -- previous policy branch chief, she's the -- now the new Director and the Department's in the -- in the process of looking for -- I mean interviewing for the Deputy Director.

DR. MELIUS: So invite her to the meetings.

MR. KOTSCH: Excuse me?

DR. MELIUS: Invite her?

MR. KOTSCH: I invited Pete. In fact Pete thought about coming and then -- but he's -- he's going to a couple other meetings right now, so...

DR. MELIUS: Tell him we'll try the Hawaii site and --

MR. KOTSCH: He may actually show up sometime if we're local, I don't know.

DR. ZIEMER: Other questions for Jeff?

UNIDENTIFIED: Dr. Ziemer, may I ask a question of the gentleman there from DOL?

DR. ZIEMER: Who is speaking?

MR. FUNKE: This is John Funke in Las Vegas.

DR. ZIEMER: Okay, John. I'll allow it, but normally we would wait till the public comment, but go ahead and ask your question.

MR. FUNKE: Well, I've got a question to ask

because it affects me directly. I was approved for Part E two months ago and I've been waiting to get a doctor's evaluation. And I talked to the ombudsman the other day when he was in town and he said he -- well, he talked to DOL. They said that they'd sent my medical card to me and it must have got lost in the mail. However, I contacted Kentucky where the cards are issued from and they never even heard of me. Now this has been two months since DOL in Seattle has approved me for Part E, and yet Kentucky, the place that issues the medical cards, still doesn't even know I exist. Could he explain that?

MR. KOTSCH: Well, Mr. Funke, I -- I'll have to check on that. I mean I -- I have no specific knowledge --

DR. ZIEMER: We'll ask Jeff to --

MR. KOTSCH: I am aware that you were -- you -- I mean -- I mean just standing here, I would think you should have gotten your card by now, but I'll have to check on that.

DR. ZIEMER: We'll have -- have Jeff check this off line and get back to you then, Mr. Funke. Thank you.

MR. FUNKE: Yeah, he can call me at [Personal Identifier), that's area code [Personal Identifier].

MR. KOTSCH: I'll -- Mr. Funke, I'll probably have John Vance get back to you 'cause -- you know John, right?

MR. FUNKE: Yes, I would appreciate -- I've had a call in for him for the last 30 days.

MR. KOTSCH: In to John?

DR. ZIEMER: Yeah. Okay, thank you. Let's take care of that part off line.

MR. FUNKE: Thanks.

DR. ZIEMER: Any other comments, Board members?

(No responses)

Very good. Thank you again, Jeff. We always appreciate your updates.

CONNECTICUT AIRCRAFT NUCLEAR ENGINE LABORATORY SEC PETITION

Now although we're a little ahead of schedule, I think we will proceed with the Connecticut Aircraft Nuclear Engine Laboratory SEC petition. Sam Glover is going to make the presentation on behalf of NIOSH.

Let me ask at this point if any of the petitioners are on the line at this moment?

(No responses)

I'll check again after Mr. Glover's presentation. Yes -- and it's Dr. Glover. Sam, proceed.

DR. GLOVER: I've got to find the presentation. Just one second.

(Pause)

All right, very good. So I'm going to present the Special Exposure Cohort petition for the Connecticut Aircraft Nuclear Engine Laboratory. As we're aware, NIOSH evaluated this petition in accordance with 42 CFR 83.14. This petition was submitted by a claimant whose dose reconstruction could not be completed by NIOSH due to lack of sufficient dosimetry-related information.

The claimant was employed at CANEL from 1958 through the end of the covered period in 1965. NIOSH's determination that it is unable to complete a dose reconstruction for any EEOICPA claimant is a qualified basis for submitting an SEC -- for -- an SEC petition.

As a brief -- we saw -- have seen some different numbers. As of August 13th, 2008 in our system we had 25 claims listed as having

CANEL employment during the covered operations period.

Some background about the facility. From 1958 through 1965 CANEL was classified as a Department of Energy facility. The site was constructed by Pratt & Whitney for Department of Energy work on developing nuclear reactor technology for aircraft propulsion. This differed from the GE work which was a direct cycle and had a direct ejection. This had -- was an indirect cycle. Later work also included development of a reactor-based System for Nuclear Auxiliary Power, also known as the SNAP-50 program.

The facility is located in Middletown, Connecticut. It's approximately five miles from the Pratt & Whitney East Hartford facility.

The facility is approximately 1,100 acres, approximately 34 buildings -- 34 buildings. Radiological work was conducted in 22 of these 34 buildings. Facilities included a Building 140, which is a Nuclear Materials Research and Development Laboratory, a Fuels Element Laboratory, a Nuclear Physics Laboratory, and a

Hot Laboratory, in addition to the other 18 facilities that conducted nuclear work. They conducted design, engineering, and research on diverse radiological programs including high-temperature materials and reactor technology, including indirect cycle of heat transfer for -- - for a nuclear engine. Basically how to build a bigger, better radiator. The SNAP-50 program from 1962 to '65; Critical Assembly Fuel Element Exchange, also the CAFEE program, for fabrication and analysis of components from '61 to '65. The work included work with natural, depleted, and enriched uranium; fission and activation products; as well as plutonium. Our efforts to capture doc-- materials assoc-- documents associated with CANEL included the Nuclear Regulatory Commission; at the Department of Energy facilities including OpenNet; multiple visits to OSTI, the Office of Scientific and Technological Information. There were approximately 9,000 different documents at that location, but most of those were associated with specific technical pieces of information not related to dose. Also the Oak Ridge Operations Office.

We went to the National Archive and Records Administration, NARA, facilities in Atlanta. No bioassay or external dose records have been provided by the DOE for any of the 25 claimants.

Information related to the -- to the radiation exposures during the DOE period, internal source of exposure included plutonium, uranium, fission and activation products.

There was significant res-- ur-- significant uranium research conducted on the site, including -- for uranium, including materials such as metals, the oxides, nitrides, carbides and nitrates. They had both enriched, depleted, and natural, and uranium-233.

Fission and activation products were generated and handled at the site.

External sources of exposure include beta and photon sources, primarily from the uranium and fission/activation products, and some possible exposure to neutrons.

Available monitoring information for internal dose, no data have been provided by DOE. None of the 25 claims have bioassay data. However, we did locate 20 uranium urinalysis records for

individuals with CANEL employment. Again, none of these were claimants. All the results were reported as 0.00 milligrams per liter. There was no information regarding the type of bioassay that was employed.

There was a 1961 AEC annual summary report for CANEL which stated that none of the employees had measured body depositions for U-238 or fission products during 1960.

External monitoring data, no personal data has -- has been identified for CANEL. The AEC annual summaries for whole body exposure provides some results. We'll look at that on the next slide. And also no data have been provided by medi-- for medical X-rays.

This slide summarizes those four or five annual reports. You see approximately how many unmonitored workers are listed, how many monitored workers -- somewhere between 132 to 258 -- and this is the breakdown of the distribution of doses that were in this -- in the AEC annual reports.

Workplace monitoring data, no data have been identified during the DOE operations period.

In a 1966 survey some surface contamination and

air concentration measurements were taken during the closeout surveys. However, this data would be unsuitable for -- for bounding doses during the SEC period.

Feasibility of dose reconstruction, NIOSH has obtained bioassay results for only a handful of individuals in the very beginning of the program. Based on the diverse scope of source terms, coupled with a lack of operations data, NIOSH has determined that neither internal nor ex-- external doses can be reconstructed. Lack of information regarding source term location and usage leads NIOSH to include all employees at the CANEL facility in the SEC class definition.

NIOSH has determined that medical doses can be con-- can be reconstructed using standard assumptions.

Based on this, a health endangerment determination is required.

Evidence reviewed in this evaluation indicates that some workers in the class may have accumulated chronic radiation exposures through intakes of radionuclides and direct exposure to radioactive materials. Consequently, NIOSH is

specifying that health may have been endangered for those workers covered by this evaluation who were employed for a number of work days aggregating at least 250 work days within the parameters established for this class, or in combination with work days within the parameters established for one or more other classes of employees in the SEC.

Proposed class is all employees of the DOE, its predecessor agencies and DOE contractors or subcontractors who worked at the Connecticut Aircraft Nuclear Engine Labora-- Engineering -- Engine Laboratory in Middletown, Connecticut from January 1, 1958 through December 31st, 1965 for a number of work days aggregating at least 250 work days incurring (sic) either solely under this employment or in combination with work days within parameters established for one or more other classes in the SEC.

The recommendation is the period, again, from January 1958 we find that the feasibility is no and health endangerment for this class is yes.

DR. ZIEMER: Thank you. And for clarity, feasibility is no for both external and internal, but is yes for medical. Is that my

understanding?

DR. GLOVER: For an 83.14 we typically don't always say what we can do, but that's --

DR. ZIEMER: Right.

DR. GLOVER: -- yes.

DR. ZIEMER: And also, as you've described this class, it would be anyone who worked anywhere on the site, not just the buildings that you identified. Is that correct?

DR. GLOVER: Lack of really understanding where they worked prohibits our trying to define that class more narrowly.

DR. ZIEMER: Thank you. So if -- if they can show that they worked at the facility anywhere, they're covered by this. Is that correct?

DR. GLOVER: Yes, sir.

DR. ZIEMER: Not just the -- the rad buildings.

DR. GLOVER: That's correct.

DR. ZIEMER: Okay. So there's nothing in the record for the non-rad workers to show that they could not be present in a rad building or would be restricted from it in some way or another, I think is what you're telling us. The records are insufficient --

DR. GLOVER: The --

DR. ZIEMER: -- for example, the receptionist at the front desk, there's no way of knowing that that receptionist couldn't have gone to the radioisotope -- whatever, calibration facility or whatever.

DR. GLOVER: Of the hundreds or maybe thousands of documents we looked at at OSTI and other places, there's very little information concerning their control of the facilities. Obviously no records have been provided regarding the actual radiation exposures these people received, so we -- we really can't put people in places and -- and try to say that they couldn't have been --

DR. ZIEMER: Yeah, I just wanted to clarify that that's really what we're saying when we -- if we approve this.

Dr. Melius.

DR. MELIUS: Also for clarification purposes, I sent an e-mail asking about whether they had actually interviewed or talked to anybody from the -- the site 'cause -- get some of the questions you just asked, Dr. Ziemer, 'cause I think in these cases where we're stating that we don't have enough information about the site

that, given the significant number of workers at the site, the time period involved, that that may have been a source of information that would be useful in some of these determinations, so maybe, Sam, if you could clarify that, I...

DR. GLOVER: I believe, as you said, we appreciate your e-mail and your input on that. But based on the type of information that we received, the lack of bioassay data that was clearly missing or destroyed, external dosimetry data is also missing, we felt that additional interviews -- we -- we looked for the technical information to try to find the actual data, and it was missing.

DR. ZIEMER: On the -- and I think maybe you're thinking along the same lines -- for example, devil's advocate here, and that is, for example, if there were worker affidavits that said there's no way we could get into these restricted areas if we were cafeteria workers or something like that, would be helpful. But -- but maybe we don't even have a way of identifying who those folks would be anyway. I'm just asking the question because it seems

to me that we have to be cautious on the other side, just as we are where you say you can reconstruct dose. Here's a case where you say you can't, and we want to say are you sure you can't, just like we say are you sure you can. Michael.

MR. GIBSON: Sam, you guys recommend the class ending December of '65. Was the decontamination activities completed then or -- looks like they may have went on in through July of '66 or something like that.

DR. GLOVER: We have recommended the entire period for the DOE covered period. There certainly do-- there are some -- it did go into '66, at which time the di-- there's some discussions in the report about there are still some contaminated facilities. All the other facilities other than two buildings were cleaned up to DOE speci-- specifications at the time. It did in-- it did go into '66, but that is the covered period.

DR. ZIEMER: That's the legally covered period under the law right now.

DR. GLOVER: That's correct.

DR. ZIEMER: Yeah.

MR. GIBSON: So you -- are you saying all but two buildings were cleaned up by December of '65, or those activities went on into '66?

DR. GLOVER: All right, let me refresh the report, but I believe that they -- we specified that activity was still cleaning these up in '66. But under the legal definition that we have right now, this is the covered period that we -- that we're working with.

DR. ZIEMER: If you got a claim from someone who was working after this period on the cleanup and -- and could not reconstruct dose, what would happen?

MR. ELLIOTT: We would not get a claim with employment past the covered period.

DR. ZIEMER: Oh, it wouldn't come to you, yeah.

MR. ELLIOTT: The -- the answer to this question, this issue, is we will consult with DOE and DOL about the cleanup activities post-December 31st, '65. It'll be up to them to make the covered facility designation change. So what we're proposing is based upon the covered facility designation that exists now, and we're saying cover the whole time period as a class. If there is a -- a change in the

covered facility designation, we'll be back here before you to attend to that --

DR. ZIEMER: Thank you.

MR. ELLIOTT: -- (unintelligible).

DR. ZIEMER: Other questions? Dr. Roessler, then Dr. Melius.

DR. ROESSLER: Part of my question has been answered I think, that the plant was closed in '65. Did they continue the -- these efforts after that point at this plant or was it totally closed?

DR. GLOVER: No, it continued for many years after that, the facility.

DR. ROESSLER: Okay. Now the -- my main question is this seems like kind of a unique facility. Are there -- were there others in the country doing the same sort of thing?

DR. GLOVER: There was a twin program, GE and this program. GE had that direct rocket engine where they were -- basically a direct injection model. It was heating that directly and shooting the fission products directly out the back, and that was tested in Idaho. This was an indirect cycle where we're basically trying to heat -- there were -- these two -- these two

--

DR. ROESSLER: Companion programs.

DR. GLOVER: Exactly.

DR. ROESSLER: Okay.

UNIDENTIFIED: (Off microphone) (Unintelligible)

DR. ZIEMER: Go ahead, John. Use the mike and we'll get your com--

DR. POSTON: Sam -- Sam, I think there were a couple more. There was one at the Test Site and one in Idaho. Both of those were -- they may have pre-dated those programs, but I know the one at the Test Site was in the early '60s 'cause I was there.

DR. GLOVER: And they -- they -- these people actually tested at those places. I know that they -- they didn't actually run the actual tests --

DR. POSTON: Oh, yes, they did.

DR. GLOVER: -- at the facility, so they -- I meant at CANEL. They went to --

DR. POSTON: I witnessed them.

DR. GLOVER: No, they went to where you're talking about.

DR. POSTON: Idaho, yeah.

DR. GLOVER: Idaho and the -- the -- yes.
DR. POSTON: And at the Test Site.
DR. GLOVER: Right.
DR. ZIEMER: Dr. Melius, additional comment?
DR. MELIUS: Well, no, an additional question -- two questions. Fir-- first, back to my earlier question about interviewing and talking to people that worked on the site, I -- I sort of got a different answer when I e-mailed LaVon on it, who said that they -- you had, and you sort of told me you hadn't. And I'm trying to -- to clarify that 'cause as Dr. Ziemer pointed out, I think it's important that we -- we clarify and make sure that we've made a -- you know, a full effort to try to, you know, see what could be learned about the facility, particularly where we -- we know that, you know, exposures may have been restricted to certain parts of the facility, the issues of, you know, how -- what -- what the radiation control program and so forth was. And given that it's a large number of workers at this facility, in the thousands -- I don't remember exact number of claims that you -- you have there that -- seems to me there should be a

pool of people to talk to, the -- suspect many of the workers in the -- either continued to work there -- I don't know if it -- was it still open or -- or is -- I know Pratt & Whitney is certainly still operating within the East Hartford -- Hart-- Hartford area has a large facility there. People may have gone there. Was a -- should have been a unionized facility, the main facility is -- there. But -- so I guess I'm trying to -- in your data collection efforts did you interview and talk to people or not in terms of the people that had worked there in order to get -- get additional information?

DR. GLOVER: I believe our response was that we had -- through the CATIs and those, we -- we had discussed it with those individuals, but we hadn't done an extensive additional data collection because we -- the -- we felt that very little would be added to the source term or the lack of bioassay and external dosimetry information that was missing.

DR. MELIUS: Okay. I'll --

DR. GLOVER: So I -- I'm -- I will revalidate -- verify our response, but that was --

DR. MELIUS: Could -- could you? That'd be helpful, and I'll -- I can try to revalidate it, too, but I can't access my e-mail right now so I can't.

DR. ZIEMER: Jim Neton has a comment.

DR. NETON: Yeah, this is Jim Neton. I just might add a little bit to this. There's also the practical issue of identifying where these workers may have been located, given the fact that somewhere around 50 percent of our -- our claimants are survivors, and very often they know nothing about where these people went. And it's impractical for the Department of Labor to try to go back and establish an exact, you know, exposure pattern by building -- building by building.

DR. MELIUS: Yeah, I mean I would agree with that, Jim, and I understand. I just think sort of there's a -- the issue is what effort was made and -- and to what extent is that -- that documented. And then my second question goes back to -- to Larry's comment, too. We know that the cleanup period extended through '66. Has -- has this issue been brought up with DOL or DOE regarding the covered period as part of

your -- I mean you -- you're saying -- basically advising us to just defer, that can be taken up later. I'm just trying to get a sense of if you brought it up with them so far or is this the first time this would be brought to their attention.

MR. ELLIOTT: No, we've been in correspondence with DOL about this, and DOE, so... We're waiting -- we're waiting to see what happens, what -- what determination they make.

DR. MELIUS: So -- so you sent -- sent them information or...

MR. ELLIOTT: We provide -- we provide Department of Energy and Department of Labor information when we find it that -- that counters the facility designation that is listed on the DOE web site. So every time we see that, there -- there's an exchange.

DR. MELIUS: So could Department of Energy or Department of Labor clarify for us what the status of that follow-up is? Thanks, Larry.

DR. ZIEMER: Either Jeff or Pat Worthington here? I guess the -- the question is, were -- is that being actively pursued, I suppose is the question, or --

MR. KOTSCH: Yeah, as far as DOL, I -- I know that's -- I don't know what the status of the -- that review is, but I know it's in the house. I know we've received it from, you know, the -- Larry's submittal and it's being reviewed.

DR. MELIUS: Would it be possible to check on that status while we're here, just --

MR. KOTSCH: I can try.

DR. MELIUS: They're closed today or some (unintelligible).

MR. KOTSCH: Yeah, I'll try.

DR. ZIEMER: Dr. Wor-- Dr. Worthington, you have an additional comment?

DR. WORTHINGTON: We actually don-- don't have an update at this time, but when we do we will get back to the Board and give you the information from DOE. Thank you.

DR. ZIEMER: Thank you very much. Other comments? Michael, an additional comment?

MR. GIBSON: And also if we could ask DOE or DOL why these decontamination activities are sometimes covered right in with the initial process or why sometimes it has to go back and be reconsidered.

DR. ZIEMER: I don't know if either DOE or DOL

can answer that. My guess is that at the time of -- the designation was made, they probably thought it had been completed at this date, and now we find it really wasn't or something, but I don't know -- Jeff, are you able to enlighten us on that? Did you hear the question? I -- I think Michael was asking, you know, why -- why was the determination made to cut off in December '65 when the work went beyond that.

MR. KOTSCH: As far as CANEL, I -- I can specifically answer that. I mean in -- in essence, when these things came in initially, they -- I think they were reviewed, but -- and some were probably -- and some of the residual periods were probably addressed and some not. I can't answer specifically for any -- like for CANEL or not. But you're right, I mean it's -- there seems to be a disconnect.

DR. ZIEMER: Well, it appears on the surface that when the original designation was made they probably thought that the work had been completed --

MR. KOTSCH: Yeah, I think that was --

DR. ZIEMER: -- at that time.

MR. KOTSCH: -- probably the case.

DR. ZIEMER: And -- I mean that would seem to be the obvious -- although who knows, I guess.
MR. KOTSCH: I mean we still -- information is still brought forward --
DR. ZIEMER: Right.
MR. KOTSCH: -- both for and against, you know, certain sites to either de-list or extend or add. So you know, there is still information coming out.
DR. ZIEMER: Well, and we've had this question before as to whether to take action or wait till the -- you know, the -- the final designation of the period is -- is done. I think NIOSH is requesting that we go ahead and approve this. If the designation changes, it's rather easy to add an-- another period on. Mark, do you have a comment?
MR. GRIFFON: Yeah, a little off the track of the current line of questioning, but I -- this is sort of the -- the devil's advocate type of question. I'm looking at your Table 5-1 and you have reports from 1960, '61, '62, '64, '65 -- AEC reports, and -- and I know that, you know, it's a small fraction of workers monitored or -- you know, ten, 15 percent of

the workers, but I'm just wondering what -- whether these reports had any other information about -- I mean it -- it appeared to me they've got five annual reports from the AEC when they only operated -- you know, we're talking about seven years, so the -- you know, they -- they did have someone looking over their shoulder, monitoring at least for external. I know there's no bioassay, but I'm -- I'm just curious -- I'm -- I'm looking for consistency, really, in -- in how we make these decisions, and -- and how did you conclude that they didn't have a good rad control program where people that were monitored could have likely had, you know, doses over ten percent of guideline values or things like that?

DR. GLOVER: It comes down to we really can't find the documentation that's available. And they clearly had a dosimetry program. None of those results are available for the individuals. These provide just -- it's a table that's provided, this is how many people were monitored for that site, and that's it. It has no individual breakdowns other than this information which we've compiled together. All

the sites and the DOE would have provided this at one time, so it's a fairly lengthy report of external doses, but all the details -- I mean we've spent a lot of time. I spent a lot of time down at OSTI trying to pull these different threads to find the -- the details of the radiological programs and they simply, as best as we can tell, no longer exist.

MR. GRIFFON: And the-- these AEC reports are really just external dosimetry reports, they weren't -- they didn't have any program overview information or any--

DR. GLOVER: It was just a table, yes.

MR. GRIFFON: Thanks.

DR. ZIEMER: Well, again, a similar type of question. One could argue that perhaps you could use that to -- to get a -- an upper estimate on at least external dose for those years, or to -- to bracket external dose, based -- even though you don't know the individual doses. I mean le-- couldn't one make that argument? Why -- why couldn't I take the DOE tables of the monitored people and use that to --

DR. GLOVER: Sort of a coworker approach.

DR. ZIEMER: Well, sure.
DR. GLOVER: I -- I guess we would certainly --
DR. ZIEMER: I'm --
DR. GLOVER: -- could take that under advi--
DR. ZIEMER: -- I'm not necessarily saying you should do that, but I -- I think, again, as we look at these and -- and say prove to us you can't do it -- if someone came in with a non-SEC cancer, couldn't you use that to put an upper limit on external? Well, that may -- I don't know, I'm -- I'm posing that as a question.
DR. GLOVER: I strongly believe the internal dose drives this situation --
DR. ZIEMER: Drives this --
DR. GLOVER: -- because of the internal -- you know, the uranium and the grinding and --
DR. ZIEMER: Yeah.
DR. GLOVER: -- the things that were going on with that. We certainly could take under advisement. That would be -- Jim Neton would have to respond to that.
DR. ZIEMER: Well, as I look at that, there's some people with -- what's in that table, there were some that had --

MR. GRIFFON: Two to three rem category.
DR. ZIEMER: -- three rem per year, and if one of those is the same person for five years, you're into the 15 rem value or something or other. Anyway -- okay, Wanda.
MS. MUNN: But in the absence of any knowledge of what the -- the monitoring program was, that's -- that's a basic factor in -- in previous discussions with respect to bounding dose, there was some information relative to who the people were who were monitored -- usually the anticipated highest number. But if we don't know that this site, not only do we not know that, we don't know -- we don't know why they were monitored, we don't know what the results of anything else might have been. It appears to be futile to attempt to try to pull that string any further.
DR. ZIEMER: Well, I -- I just like to think about these things at -- typically you would monitor the people you expected to get exposed, and here are the results. And so at least for bounding purposes, one might say well, there's a -- there's a dataset that, in sort of a coworker sense, might be used.

MS. MUNN: Yes, typically. But there's -- is there any way we know that this is a typical process? We don't.

DR. NETON: Yeah, I guess I would just agree with what Wanda's saying. I know you're playing devil's advocate, Dr. Ziemer, but you know, without the existence of some sort of thread as to how the program was -- was positioned and who they intended to monitor -- we've gone through this many times and argued the other side with the Board, that we don't really know what happened and therefore, even though we have a -- some type of distribution, it's -- the workforce was not representatively monitored, so -- in this case we have no information to indicate, you know, who was monitored. And in fact it's -- it's just as bad to come up with a coworker model that you can't defend then and then provide people potentially lower doses than were received, and then you're really open for criticism on the other side of the coin.

DR. ZIEMER: Thank you, I'm -- I'm trying to force you to defend your recommendation, actually. Another comment?

MR. LEWIS: Yeah, this is Greg Lewis from the Department of Energy. I just want to clarify a little bit. In addition to Oak Ridge and OSTI where they did find some small amount of records, we internally queried a number of our sites, including Legacy Management and ten or 15 other sites, and you know, didn't find anything responsive on CANEL, so...

DR. ZIEMER: Thank you. Josie?

MS. BEACH: Well, I was just reviewing the CD that I was sent originally with this site, and there are a couple of letters on here. I'm not going to state names, but -- that indicate interviews by DOL and that state that there was no bioassay program available, so -- so some of that document -- is documented.

DR. ZIEMER: Any further comments or questions? It would be in order to have a motion of some sort relative to this recommendation.

Wanda Munn.

MS. MUNN: I would move that Connecticut Aircraft Nuclear Engine Laboratory Special Exposure Cohort petition be accepted as presented.

MR. CLAWSON: I second it.

MR. SCHOFIELD: Second.

DR. ZIEMER: Seconded by Brad or Phil or both. Is there discussion on this motion?

(No responses)

I'm going to -- before we vote I'm going to ask if -- if there are petitioners on the line for the Connecticut facility.

(No responses)

Apparently not. Michael, do you have a comment on this motion?

MR. GIBSON: Yeah, I just want to make sure that we -- we do have on the record and a commitment by DOE and DOL to determine this -- this additional time period for the cleanup so it doesn't fall through cracks.

DR. ZIEMER: I think we've heard that that will be followed up. It will not be part of this motion, however. Motion will deal only with the legal definition of the covered period. If this motion passes I will ask that we return to it Thursday with formal wording in the form that it would go to the Secretary, which is our standard sort of boilerplate for SEC petitions, and I'll ask Dr. Melius if he'd be willing to provide that wording since he has sort of the

template in his laptop --

DR. MELIUS: Yes.

DR. ZIEMER: -- if that's agreeable, should this motion pass.

DR. MELIUS: And -- and I would also, just to follow up on Mike's comment, I would have concerns about voting for this motion personally until we have, one, on record what the exact efforts were that were made by NIOSH in terms of follow-up and talking to workers so we get that on -- on the record for this in terms of the effort made. And secondly, some response from Department of Labor on what's happen-- what is the status of their follow-up on CANEL, I -- or CANEL, however we're pronouncing it -- so that we can -- can have that for our -- before our Thursday vote and so we can take that into consideration -- which -- I can take that into consideration.

DR. ZIEMER: Are you asking to table the motion for now or --

DR. MELIUS: I think so, yeah.

DR. ZIEMER: You're not sure what you're --

DR. MELIUS: Well, I'd -- I mean I will still write the letter.

DR. ZIEMER: No, no, I --
DR. MELIUS: (Unintelligible) what to do procedurally. I think in the past we have --
DR. ZIEMER: Well --
DR. MELIUS: -- sort of taken a general sense of the Board and then --
DR. ZIEMER: Well, I don't --
DR. MELIUS: -- do the formal motion on Thursday.
DR. ZIEMER: Well, this would be the motion. All we would do Thursday is make sure we had the -- the wording correctly. So if members of the Board wish to delay or if -- if you are -- what word should I use -- sympathetic with the issues that Dr. Melius has raised, the -- the Chair would certainly be willing to entertain a motion to postpone -- would be a motion to postpone until Thursday, or if the others of you are ready to vote, we can go ahead and vote. In the absence of a motion to postpone or to table, we'll proceed.
MR. GIBSON: I move that we postpone.
DR. MELIUS: I'll second that.
DR. ZIEMER: You're moving to postpone specifically till Thursday?

DR. MELIUS: Till Thursday.
DR. ZIEMER: Okay.
MS. MUNN: And what?
DR. ZIEMER: Well, we -- okay, the question is can we verify that Department of Labor and perhaps DOE will be able to verify or at least confirm -- I don't -- I don't know that they will have the answer -- you're not asking for the answer --
DR. MELIUS: No, I wanted an -- an update --
DR. ZIEMER: -- just a commitment --
DR. MELIUS: -- by -- what the status is.
DR. ZIEMER: -- and the status report on that.
DR. MELIUS: Right.
DR. ZIEMER: So that's all that's being asked for.
DR. MELIUS: That's all I'm -- being asked -- and secondly, I want on record what NIOSH's efforts were in terms of following up and interviewing workers which -- got a partial e-mail which I still can't access from -- from Lavon, who's not here, about -- and I'd like to make sure that's on the record in terms of the effort that was made.
DR. ZIEMER: Okay, we'll --

DR. MELIUS: And that can be -- also be done by Thursday. I hope I can get access to my e-mail by Thursday.

DR. ZIEMER: Okay. We will vote immediately on the motion to postpone, which I'm interpreting as being a tabling motion, therefore we'll vote immediately on it.

Those who favor postponing till Thursday, say aye.

(Affirmative responses)

Any opposed?

(Negative responses)

Okay, we'll take a roll call vote.

DR. BRANCHE: Ms. Beach?

MS. BEACH: Aye.

DR. BRANCHE: Mr. Clawson?

MR. CLAWSON: Aye.

DR. BRANCHE: Mr. Gibson?

MR. GIBSON: Aye.

DR. BRANCHE: Mr. Griffon?

MR. GRIFFON: Aye.

DR. BRANCHE: Dr. Melius?

DR. MELIUS: Aye.

DR. BRANCHE: Ms. Munn?

MS. MUNN: No.

DR. BRANCHE: Mr. Presley?
MR. PRESLEY: No.
DR. BRANCHE: Dr. Poston?
DR. POSTON: No.
DR. BRANCHE: Dr. Roessler?
DR. ROESSLER: Yes, aye.
DR. BRANCHE: Mr. Schofield?
MR. SCHOFIELD: Aye.
DR. BRANCHE: Dr. Ziemer.
DR. ZIEMER: Aye. I think the ayes have it; it's postponed till Thursday to get clarity, make sure everybody's okay with that.
The Chair -- the sense of the Chair is that -- that the Board members are generally in favor of the original motion so that I would ask that we be prepared with the formal wording. If I sense this wrong, then your labor will be in vain, but be ready for the --
DR. MELIUS: May surprise you with -- no. Read it carefully.
DR. ZIEMER: Sam Glover, thank you for your presentation and for helping us through this. We will return to this matter on -- on Thursday during our work session.

PUBLIC COMMENT

Now we have a public comment period scheduled for 5:00 o'clock, which is an hour from now. I want to find out, if I could have -- just pause briefly. The last I saw there were three names on the list of people wishing to make public comment, and I'm going to -- going to ask, if those folks are here, if they'd be willing to proceed rather than wait for an hour.

MS. KLEA: Bonnie Klea. I say let's proceed.

DR. ZIEMER: Who else was on the list?

MS. BLAZE: (Off microphone) (Unintelligible)

DR. ZIEMER: Are you willing to proceed? And who is the third one?

Denise? Denise De -- was she here in person?

DR. BRANCHE: She's right here.

DR. ZIEMER: Oh, you're Denise, okay. Bonnie we got. D'Lanie?

MS. BLAZE: That's me.

DR. ZIEMER: Okay, so you're willing to proceed?

MS. BLAZE: Sure.

DR. ZIEMER: Okay, then we'll just take you in order then. D'Lanie, you're -- you're up first. D'Lanie Blaze.

Hold on a second.

MS. BLAZE: This is my first time commenting --

DR. BRANCHE: One second --

MS. BLAZE: -- so I'm nervous.

DR. BRANCHE: -- one second. I just want to make certain -- because we are starting the public comment period, I want to make certain that everybody understands the ground rules, please.

MS. BLAZE: Okay.

DR. ZIEMER: Yeah, we have to read this into the record.

DR. BRANCHE: Please understand that a person making a comment -- when you give your own name, there'll be no attempt to redact your name from the transcript. Including reading this statement during this public comment period, NIOSH is making all steps -- reasonable steps to ensure that individuals making public comment are aware of the fact that their comments, including their name, if provided, will appear in a transcript of the meeting posted on a public web site. A printed copy of the statement is available on our table in the back. The redaction policy was part of our

Federal Register announcement, and there is a statement of our redaction policy on our NIOSH web site.

An individual making a statement, if you reveal personal information such as medical information about yourself, that information will not usually be redacted. The NIOSH Freedom of Information Act coordinator will, however, review such revelations in accordance with the Freedom of Information Act and the Federal Advisory Committee Act and, if deemed appropriate, will redact such information. All disclosures of information concerning third parties will be redacted.

Thank you, Dr. Ziemer. That goes for all of you who wish to -- stated a wish to speak today. Thank you very much.

DR. ZIEMER: Thank you, and now we'll hear from Ms. Blaze.

MS. BLAZE: I'm D'Lanie Blaze. I founded the aerospace.org and -- am -- am I on the mike enough?

DR. ZIEMER: Yes.

MS. BLAZE: Can you hear me? Okay. We're currently addressing our desire to see chronic

lymphocytic leukemia, or CLL, added to the list of specified cancers immediately. And also we're addressing the issues of Santa Susana Field Laboratory and the inclusion of every employee at Santa Susana Field Lab under the Energy Employee Occupational Illness Compensation Program Act of 2000 after lots of site-wide contamination at the hands of the Department of Energy continues to surface even today.

Today I'd like to talk about the addition of CLL, which the World Health Organization, the Revised European-American Lymphoma Classification Scheme, the Veterans Administration and renowned researchers, scientists and medical professionals nationwide have acknowledged and reclassified to be analogous with small lymphocytic lymphoma, which is on the list of specified cancers. It is a known consequence of radiation exposure. The science has been sufficient to motivate a timely reclassification to CLL by the aforementioned organizations and entities. However, NIOSH and EEOICPA are lagging behind the rest of the world with respect to making

the reclassification.

The report entitled Ionizing Radiation and CLL, which was published in the *Environmental Health Perspectives*, Volume 113, Number 1, January 2005, authored by Dr. David Richardson from the Department of Epidemiology, University of North Carolina at Chapel Hill, validates the reclassification of CLL by all of the entities that I mentioned. And even he says this is a problem of logical consistency. For a specialist in the field, all he does is study CLL, and for him to say that this is a problem of logical consistency for SLL to be acknowledged and CLL to be denied, that has got to raise our -- our red flags. We need to be listening to what the specialists have to say.

The Japanese atomic bomb survivor lifespan study has served as a primary study for the carcinogenic effects of ionizing radiation, and it is now known that it provided very inept results with respect to CLL in that, according to Finch and Linet in 1992, and -- and others, Asian Pacific Islander populations are up to 80 percent less likely to develop CLL. With problems of missed diagnosis, a long latency

period, there were unreasonable exposure lag assumptions with respect to the nuclear cohorts that were examined, and further, many of the studies reviewed were mortality studies and CLL is often a non-fatal illness.

In the report CLL, an Overview of Etiology, and in light of recent development in classification and pathogenesis from the *British Journal of Hematology* in 2007 by Martha S. Linet, Radiation Epidemiology Branch of the National Cancer Institute, she substantiates the reclassification of CLL by the World Health Organization, the Revised European-American Lymphoma Classification Scheme, along with the major reclassification scheme for all lymphoid and myeloid disorders. CLL has been grouped with SLL and it is based on identical cytology, histopathology, immunophenotype and cytogenetics. Additionally she reminds us all that leukemia has been a known consequence of radiation for over 100 years.

I have submitted over probably 500 pages of recent scientific evidence linking Chronic Lymphocytic Leukemia to radiation exposure and validating its reclassification. I have the

information on my web site, which is, again, the aerospace.org, and I'm asking the panel to include this illness on the list of specified cancers without further delay. This is a national outcry.

Thank you.

DR. ZIEMER: Thank you very much, Ms. Blaze, for that input. Let's go on now to Bonnie Klea.

MS. KLEA: Can I bring my map up front?

DR. ZIEMER: Yes. She's a petitioner.

MS. KLEA: (Off microphone) (Unintelligible)

DR. BRANCHE: Ms. Klea, I just have a quick question. Is that the on-- I'm speaking to you. I'm speaking to you. Is that the only visual that you have? Do you have any handouts that are -- of this -- of this information? I'm just asking.

MS. KLEA: No.

DR. BRANCHE: Okay. Thank you.

MS. KLEA: No, I'm not that prepared.

DR. BRANCHE: Thank you.

MS. KLEA: I mean I'm prepared.

DR. BRANCHE: I don't doubt that you're prepared. I'm just asking.

MS. KLEA: I'll get you anything you want.
DR. BRANCHE: Thank you.
MS. KLEA: I'm Bonnie Klea, and I'm a petitioner for the Santa Susana Field Lab, petition number 93. I don't know if many of you know it, but the Santa Susana Field Lab is a sister to the Rocky Flats facility. We trained many of the workers for Rocky Flats and for the Hanford facility, and we also -- also shared environmental crimes. We've both had FBI raids. We both went to the grand jury. We sent the manager to Rocky Flats when they had their FBI raid. We were very closely connected. They were both run by the Rockwell Company. And at the time when they were in operation they were competing with GE and Westinghouse, so it was -- it was very common for them to run their reactors until they failed, and then they wrote procedure and -- let's see.
We had ten experimental reactors, and you probably heard of the biggest reactor right here would have been the sodium experiment -- the sodium reactor experiment. In the early days the SRE piped all their liquid discharge

into holding ponds behind the facility and -- and this is all on a cliff, everything's on a cliff. Well, those failed, the -- the concrete basins failed and cracked. So then they rerouted the liquid waste along the roads and the -- the gutters and put them in holding ponds in other areas. Areas 2 had several holding ponds, as well as the Silvernale facility. Now -- let's see.

Up here on the Los Angeles side, this would have been -- the San Fernando Valley -- we had a reservoir that was built in 1919 and it served millions of people in the San Fernando Valley. And guess what? It drained from the Burro Flats area. There was a fault called the Burro Flats fault that drained all the water off of this facility directly into the drinking water reservoir, and then I just -- we just found a 1956 report that the -- the company was going to save money by building a pit 15 by five feet and discharging 1,000 gallons per day into that pit. And they found a real nice area right by a large fault, and they thought that fault was sealed and it wouldn't drain. So therefore, ten years after the operation, the

Department of Water and Power built a -- a tunnel draining all the runoff from the facility over to the Los Angeles River, and they drained the reservoir and that reservoir was never refilled. And we have data at this time that shows that the rads in the drinking water was six times the -- the water that they were piping in.

So the whole facility actually drained into the San Fernando Valley. We have three canyons over here on the -- on the eastern side, and then we have the city of Simi Valley over here on the north. They have contaminants in their drinking water. Also Area IV drained into the Brandeis-Bardin Children's Camp and they -- the company had to purchase back a buffer zone. So on every side of the hill -- and this is 1,000 feet above the valley floor -- we have migration of contamination.

In this grassy area here they dropped field* slugs to see how far they would penetrate into the ground, and at this time they're still trying to find missing field slugs.

We had -- we had the largest hot lab in the country. Waste from all companies was trucked

up here into that hot lab.
We also had a plutonium fabrication facility, and I've just met two workers who worked there in the early '60s and they said they had a large accident in that -- in that facility and everyone who worked there had to have their houses tested, and the -- the negative pressure went to positive, it blew out all the gloveboxes.
We had SNAP-8 ER. In 1964 it was run to a maximum power. The operators got an award for that, but it lost 80 percent of the cladding. And you may know that the sodium reactor experiment lost 13 fuel rods to total melting. We call that a meltdown. We also had SNAP-8 DR and it -- I think it was 1965, it lost 70 of their fuel rods to cladding failure. So the -- the work there was totally experimental.
And one thing I want to point out is they used to send a bus from Area IV into the rocket testing site. This was Area I where they did rocket testing. And they used to pick up the workers to help support the work in Area IV.
Now one thing I will be working on will be to include all the workers at this facility. So

many of the workers worked here. They may have a few days on record with DOE, but they don't have all their days. And now those workers are sick.

On the western San Fernando Valley that borders close to the Santa Sus-- Santa Susana Field Lab, we've had a very high rate of bladder cancer since the '70s. We've had three major studies that have shown bladder cancer of 50 percent, and now it's up to 55 percent, with melanomas at 85 percent. And I'm finding many of the workers also have bladder cancer. My -- the latest worker who was diagnosed was two years ago, and he operated SNAP-8 ER, so these are long latency cancers, but many more bladder cancers than any of the other 22, and that's what I had. I had bladder cancer also and I consider myself the canary in the mine. I was a woman, I was only 20, and we know that women are more at risk. I had no other job. This was the only place I ever worked, and when I was diagnosed with cancer, the first thing my doctors asked me was where did I work.

Over here at the -- the so-- they old -- they call it the former sodium burn pit. It was off

on this site, not on the map, but there were three large ponds and this pit operated daily for 20 years. They had a radioactive burial site there. They had three liquid ponds there where they cleaned parts and then the workers thought it'd be really funny to throw the sodium in there and it would explode, and that -- those pits in that old burn facility is found to contain strontium, plutonium and cesium.

So they closed that in around 1974, and then they built their new burn pit over here in Area I and they trucked the waste from Area IV over to Area I. And currently the EPA is in the process of testing for rads in that burn pit. It's totally covered up to -- to prevent migration.

We also are the site in southern California of the Santa Ana winds. They blow from the north, which would be over here. They blow northeast, so anything that was burned over here in the sodium burn pits would have contaminated the workers from the whole site and the San Fernando Valley, hurricane -- hurricane-force winds from the Santa Anas.

The workers, especially the secretaries -- I was a secretary -- we didn't spend a lot of time in our offices. Our offices really didn't have what we needed. We had to go outside and walk maybe down the road, across the street to the ditto lab where they had the ditto machines, and many of you older workers will remember that. We had another building that was a photo lab. We had another building that was a supply room. Another building, we'd go pick up mail every day. So I had no respect -- no restrictions. I had a Q clearance and the Atomic Energy Commission gave me a car. Every week I'd go out to all the outlying buildings and I'd deliver the paychecks and -- I had no restrictions whatsoever. I was not even given any instructions on what they were doing there or safety practices at all.

Now I did mention that all the water was drained from Area IV, went into holding ponds in Area II, and we had on-site drinking wells that they used for us and they'd pump groundwater, and -- and they didn't test it, they didn't test it for rads so we don't know what was in our drinking water.

We carpooled. Carpooling was encouraged. Now in the early days the workers wore the same clothes to work as they wore home, and I've heard stories from many workers they were told -- when they got home -- to bury their clothes; have their wife wash them in a separate load, not with the family laundry. So we were carpooling, and who knows what the workers had on their clothes.

We had a reclaimed water system. When the water was drained from Area IV, storm water runoff, it was put in holding ponds. We had holding tanks up here for the reclaimed water system, and all the rocket test stands used that reclaimed water to cool down the rocket engines after they had done a test firing. The reclaimed water was also used for site-wide irrigation, so there's another potential pathway of airborne contamination.

Also we have workers who have told me that they were under lifetime secrecy. I have a 90-year-old plutonium fuel rod specialist who made the fuel rods, and they had a large accident in 1958. It wasn't at this site but it was at the VanOwen site, and I've been unable to do a FOIA

request and get any documentation, so I have about 150 of the fuel workers working with plutonium that are under lifetime secrecy, so I don't know if other sites have had this problem, so we are unable to really get accurate records. But the whole -- the whole site is under federal mandate at this time to produce records, and we've received from the Boeing Company 40 stories high estimated of new records. And like I say, I have a old 1956 report which is pretty interesting about dumping the liquid radioactive waste directly into the ground. They knew it would take a while before it would get to the groundwater, and they thought that the rock in that area would saturate and hold it, but that's not true because ten years later the reservoir was drained and never ever used again.

Thank you very much. Does anyone have any questions?

DR. ZIEMER: Thank you, Bonnie, for sharing that information with the Board. We --

MS. KLEA: Thank you.

DR. ZIEMER: -- appreciate that.

DR. BRANCHE: I need to ask her something.

DR. ZIEMER: A comment here.
DR. BRANCHE: Ms. Klea?
MS. KLEA: (Off microphone) (Unintelligible)
DR. BRANCHE: Ms. Klea? I'm speaking to you.
MS. KLEA: Yes?
DR. BRANCHE: I just wanted to let you know that if you did have that information and if you have it in a form electronically that you would want it sent to the Board, if you were to send it to me I can make certain that they each get individual copies if you would prefer.
MS. KLEA: I've already suggested that the Board should get it directly from Boeing. Boeing has submitted it to the EPA, and we can't -- we can only read it if we go over to the office in the Chatsworth area and sit and read it. It's actually prohibited from taking out, even though we've gotten copies of some things.
DR. BRANCHE: Thank you.
MS. KLEA: So if there's something specific, I'll get it.
DR. BRANCHE: It was just a -- no, please, no pressure on you. It's just that it's a visual and if -- if -- but you've given us

information.

DR. ZIEMER: No, she -- I think she's just talking about this diagram. Right?

DR. BRANCHE: Yeah, I was just talking about the diagram.

MS. KLEA: Oh, really?

DR. ZIEMER: If there were copies of that you were -- yeah.

MS. KLEA: Okay, I'm -- I'm borrowing this from another activist, but you'd like to have that?

DR. BRANCHE: I'm simply offering you the opportunity if you would like to get copies of that to the Board --

MS. KLEA: Okay.

DR. BRANCHE: -- then I'm happy to work with you.

DR. ZIEMER: But it's not -- it's not --

DR. BRANCHE: It's not required.

DR. ZIEMER: -- no.

DR. BRANCHE: It's not required, I'm just offering that opportunity to you. I can talk to you afterwards to see how you might want to facilitate that.

MS. KLEA: Okay, does anyone have any idea how I would --

DR. BRANCHE: We -- we can talk about it off line.

MS. KLEA: Okay.

DR. BRANCHE: Thank you very much.

DR. ZIEMER: Then we'll hear from Denise DeGarm (sic). Denise is here on behalf of Dow Madison, I believe -- yeah.

DR. DEGARMO: I am here on behalf of Dow Madison. I saw you all in St. Louis so it's kind of fun to be here in California, out of St. Louis, but as you know, the Dow Madison site has an SEC for 1957 through 1960. We're covered under a residual period. There's been quite a bit of discussion about the use of dose reconstruction to evaluate those individuals under the residual period. So what I'd like to do -- I don't know if you want me -- you have copies of this, do you want me to read it into the record or -- they're coming right now.

DR. ZIEMER: Is it just a page?

DR. DEGARMO: It's a page and a half, at --

DR. ZIEMER: I would suggest you go ahead and read it into the record.

DR. DEGARMO: Okay, I'd be happy to. On August 21st, as you know, there was a discussion by

the S-- SC&A about dose reconstruction. My letter begins (reading) It is with great interest that I listened to the SC&A's discussion of the Interactive RadioEpidemiological Program on August 21st, 2008. I believe the initial findings regarding the use of IREP to reconstruct exposures for the workers at Dow Chemical in Madison, Illinois to be quite insightful, especially in terms of problems associated with the use of this model.

As SC&A stated, Dow Madison was not originally constructed to perform work for the Atomic Energy Commission. Therefore, appropriate measures to protect workers from radiological hazards were not part of the original blueprints. Rather they were afterthoughts, which left workers to perform their jobs without the benefit of protective equipment throughout the AEC period. While there is the existence of some radiological readings, there are too few of them. Basically most of these are air readings that were taken throughout the plant. Therefore, information about exposure rates is inadequate to capture the actual

radiation workers were exposed to on a daily basis.

After an extensive evaluation of the IREP model I would like to take this opportunity to point out additional problems associated with its use. First, dose estimates -- dose estimates used in the model are problematic because of Dow's failure to monitor workers on a consistent basis, or monitor the particular isotopes of concern. Furthermore, the retrieval of applicable records has been difficult, if not impossible. Records such as bad read-- badge readings and internal dosimetry cannot be found for the Dow workers. In some case the workers lack access to adequate medical records because the company kept none. External readings cannot adequately replace medical records in establishing the probability of exposure. Without bioassay or badge external dosimetry, how can anyone be expected to have confidence in the dose estimated -- estimates generated for the use in IREP.

Secondly, the decision to compensate former atomic weapons workers is not made from the

injury sustained by the worker, but from epidemiological evidence that is largely statistical. There are several statistical problems inherent in the IREP model. First, the use of a 99 percent confidence interval increases the probability of a type two error. Type two errors occur when one concludes that there is nothing there when there actually is. In computing the overall risk to an individual employee, IREP uses aggregate data -- level data to impute the levels of radiation exposure down to an individual employee. This is the ecological fallacy at its finest. Since the model does not even attempt to remedy this situation, the results are questionable at best.

There are other statistical assumptions made, such as the constant level of radiological exposure. We all know that the level of exposure varies considerably. I would suspect that the standard deviation as a result of this would be so high that no one could be concluded to have cancer caused by radiation exposure. The correction factor in the model is not based on theory but rather on the belief that it

represents a higher risk. If not grounded in theory, then how can we be sure that it does what NIOSH says it does?

IREP's dose estimates are predicated upon the use of thorium with less than three percent purity. The Atomic Energy Commission licenses would refute this claim. According to license number C-2782, for instance, Dow Madison worked with thorium sintered pellets with 90 percent -- 97 percent thorium, and thorium fluoride with 71 percent thorium.

Finally, the model does not account for those who received early detection of their cancer. It appears as if the workers are being punished for having their cancers detected early on, and detecting cancer early provides the best chance of surviving this disease.

In addition to these problems with the model, a couple of other considerations should be mentioned. In many cases researchers have been denied access to relevant health and environmental data, which limits the ability for an external and independent review of methods and findings. Furthermore, the ability of community organizations to independently

evaluate how cited sources of information have been analyzed is not readily available.

Also there seems to be a communication gap between workers and NIOSH. Many of the former atomic weapons employees have little formal education. Their ability to understand the complexities involved with the EEOICPA is limited at best. Furthermore, their lack of education makes effective communication with officials quite difficult. Therefore I cannot help but wonder if they are fully aware of their rights, such as requesting copies of all the documents used during their dose reconstructions.

As you move forward in your determination regarding the use of IREP to reconstruct radiological dose estimates for Dow Madison, I hope you will take these comments into consideration.

Thank you.

DR. ZIEMER: And thank you very much for those comments. Let me ask, is there anyone else in the assembly, members of the public that have comments that didn't have an opportunity to sign up for that?

MR. FUNKE: Dr. Zimmer (sic)?
DR. ZIEMER: Yes, is there anyone on the phone that wishes to make comment?
MR. FUNKE: Yes, this is John Funke.
DR. ZIEMER: Yes, Mr. Funke, you may proceed.
MR. FUNKE: Dr. Zimmer (sic), I turned over an 18-page report to Larry Elliott to turn over to all of you. I hope you have it by now. This report --
DR. ZIEMER: Yes, we do.
MR. FUNKE: -- is Nevada Test Site sample stations, and during the last working Board meeting in -- that I listened in on, this subject came up and was pretty much left open. When the discussion was over there was no resolution on anything. And I am very familiar with these stations and I'm very familiar with the Test Site as I worked in just about every part of -- of the Test Site out there. And I did a lot of research on this. In fact, I worked about two weeks -- relationship to the locations of the sample stations, the purpose they were put there for in the first place, the year -- the date that they were installed, the elevations of the test site and the distances

between the sample stations and how they relate to workplace air quality. I'd like to point out that these sample stations never were intended for the purpose they're being used right now. They were installed for complex air quality for environmental. They do not give data that would re-- reflect what workers would have been exposed to in the workplace. And they are not set up in such a way where one will correlate the other or support the other's information. They vary in elevations between three to four hundred feet each. There are substantial miles of distances between them. Two of them are temporary, which are set up in Area 19 and 20, and there is no power, which you need power to run these sample stations. There is portable power up there, but it only runs when people need it. They turn it on to run a few electrical tools and they turn it off when they don't need it. They don't leave it running all night, and it doesn't run, you know, all day long in the work period. And most important of all, in the two areas we're talking about, 19 and 20, by the time the complex was set up where there was 24-hour

power, by that time there would have been a substantial amount of snow on the ground so you wouldn't really got samples of -- of the air quality that people would have been going through while the work was going on there.
And as to the other ones, they were located -- easy accessible and where a power supply was next to a dispensary or a cafeteria, and they would have been sufficient for air quality monitoring for environmental purposes in a complex, but they would not been substan-- they would not been satisfactory to do -- just a second -- to do studies of -- of the -- the exposures that the workers would have been exposed to.
So I -- I would like you to -- to read this report and I would like to have an opportunity to address the working Board at the next meeting, if possible, and I would also like to ask you to charge Sanford and Cohen to go ahead and take a look at this document as well because John Murrow (sic) was litigating this matter. Maybe some of the information I have in there would help him. I think I've covered just about everything there is in this report

with the exception of one thing. I did not put down the date when it was installed. It was installed in 1971, and it was only there for 21 years of the 40-- wait a minute, 54 years the testing was done, so there was 30-something years in there when this wasn't even used, so I don't see how they can use this as environmental intake.

And that's pretty much it.

DR. ZIEMER: Okay. Thank you very much, Mr. Funke, for that input on the Nevada Test Site, and the Board does have your com-- your document, as well as the workgroup itself.

Let me now ask if any other members of the public on the phone that wish to address the Board?

(No responses)

Apparently not. Then we are ready to recess for the day. We're going to continue our deliberations tomorrow morning at 8:30. Thank you all very much.

MS. KLEA: I have a question.

DR. ZIEMER: Oh, a question.

MS. KLEA: I have elected officials that I think are planning to call in during your

comment --

DR. MELIUS: Yeah.

MS. KLEA: -- period --

DR. ZIEMER: Oh.

MS. KLEA: -- and if they're not on the line now, then they don't (unintelligible).

DR. ZIEMER: Then -- then -- okay, do we know of any that are -- we will stay here and -- we'll take a break then and see if we can touch base with them.

MS. KLEA: (Off microphone) Most people who have the agenda are waiting for that 5:00 o'clock (unintelligible) --

DR. ZIEMER: Right, we'll need to accommodate them, so let's take a break and then we'll -- we'll return at 5:00 to get those additional comments.

DR. BRANCHE: So we'll put the -- we'll put the phone on mute until 5:00 p.m. Thank you.

(Whereupon, a recess was taken from 4:30 p.m. to 5:00 p.m.)

DR. ZIEMER: We are reconvening the Advisory Board for purposes of public comment. In particular we want to receive public comment from individuals who are on the phone lines who

did not have an opportunity earlier where we had some public comment just prior to this from the floor here. Are there any members of the public on the line who wish to make public comment?

(No responses)

Again I'll ask, are there any members of the public on the telephone lines who wish to make public comment at this time?

(No responses)

So far there appear to be none that wish to make comment at this time. I'll wait just a moment.

MS. MUNN: Perhaps we should wait a couple of minutes -- perhaps. I don't quite have 5:00 yet. My cell phone is saying 5:00 o'clock right now.

DR. ZIEMER: We'll wait just another moment in case others come on the line.

(Pause)

While we're waiting, I -- I would like to point out that we do have a fixed time public comment period scheduled for tomorrow evening at 7:30, so that will be another opportunity for folks, both here locally as well as on the phone

lines, to make public comment to the Board. Let me -- let me check again. Is there anyone on the phone who wishes to make public comment at this time?

(No responses)

It appears that there are not. I think in the absence of any -- anyone on the phone line, I will declare that we are in recess until tomorrow morning at 8:30. Thank you very much.

(Whereupon, the first day's business was adjourned at 5:02 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 Sept. 2, 2008; 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 4th day of Oct., 2008.

_____

STEVEN RAY GREEN, CCR, CVR-CM, PNSC

CERTIFIED MERIT COURT REPORTER

CERTIFICATE NUMBER: A-2102

I hereby certify that to the best of my knowledge, the Transcript of the September 2, 2008 Advisory Board on Radiation and Worker Health Meeting held at Redondo Beach, CA, is accurate and complete.

_____

October 11, 2008

Paul L. Ziemer, Ph.D.
Chair, Advisory Board on Radiation and Worker Health