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convenes

MEETING 50

ADVISORY BOARD ON

RADIATION AND WORKER HEALTH

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C O N T E N T S

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-- "*" denotes a spelling based on phonetics, without reference available.

-- (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

(1:15 p.m.)

WELCOME AND OPENING COMMENTS
DR. PAUL ZIEMER, CHAIR

DR. ZIEMER: Good afternoon, everyone. I'd like to call the meeting to order. This is the 50th meeting of the Advisory Board on Radiation and Worker Health. The agenda for this meeting, as well as related documents, are on the table in the back of the room. If you have not gotten copies, please avail yourself of those.

Also my usual reminder, we would like you to register your attendance with us. The registration book is in the corridor. Also there is a book to sign up for addressing the assembly during the public meeting time, and if you wish to do that please make -- make yourself -- or make that known through the use of that particular book.

The record will show that all of the Board members are here present with the exception of Dr. Melius and Dr. Lockey, who will be joining us tomorrow, but we do have a quorum.

Since the -- the 50th meeting represents a kind

of milestone, if you would indulge the Chair for a moment I'd like to reminisce.

DR. WADE: Ah.

DR. ZIEMER: When you get to my age, you like to do that a lot.

This Board first met in January of 2002. At that time the members -- there were ten members: Henry A. Anderson, Antonio Andrade, Roy L. DeHart, Richard L. Espinosa, Sally L. Gadola, James M. Melius, Wanda I. Munn, Robert W. Presley, Genevieve S. Roessler and Paul L. Ziemer. That was January, and Mark Griffon joined the group shortly thereafter, according to my records, in March of 2002. So of that original group of ten or 11 -- I guess 11 if we count you, Mark -- we still have six folks who have been here for the full period, which now has -- it's completing its sixth year of operation. So I salute those of my colleagues who have been faithful and persevered through many, many meetings.

Later in 2002, in October, Michael Gibson and Charles Leon Owens joined the Board. And the Board operated with those members, the ones I've just named and the original group, through

2003, 2004, and early 2005.

Our colleague Tony Andrade died in February of 2005. Also in February of 2005 -- and I should mention that our original Designated Federal Official was Larry Elliott, but in February 2005 Dr. Lewis Wade replaced Larry Elliott as the Designated Federal Official.

In 2006 three new members joined us, Bradley P. Clawson, James E. Lockey and John Poston, all of whom were added in January of 2006, and then in January of 2007 Josie M. Beach and Phillip M. Schofield.

Now of all the names that I've read, with the exception of two -- Sally Gadola had to resign early in 2002, shortly -- during the first year of the Board due to a conflict of interest.

And I've already mentioned that -- that Antonio Andrade died in 2005. There were some others who left the Board in 2006 at the time that the new members came on. Those were Henry P. Anderson, Richard L. Espinosa, both of whom completed their terms of the Board in January 2006, and then Roy L. DeHart, who completed his term with the Board in August of 2006. And finally Charles Leon Owens resigned from the

Board in September 2006.

So I thought it was -- at least for the benefit of the Board members -- worth reminiscing about who's been with us and how long they've been with us. We're very pleased with all of the Board members who've participated over these past six years. All of them have been active, have had significant input on all issues and have made major contributions in -- in keeping us on track. So I thank all of the Board members, our Designated Federal Officials, and I should point out that the work of this Board could not be carried out without the strong support of the various staff members representing the federal agencies to which we are attempting to provide good sound advice.

With that I will turn it over to our Designated Federal Official, Dr. Wade.

DR. WADE: Well, thank you, Dr. Ziemer. Welcome, and as I always start a meeting, thank you. Let me add briefly to Dr. Ziemer's comments.

I had had the privilege in my career of serving a number of advisory boards and committees in very disparate areas of government, and I have

never seen a board more dedicated and productive and professional than this Board as it currently sits. To a person, everyone around this table makes tremendous sacrifice and contribution to the work of -- of this Board. I think we all understand the importance of those we serve that -- the atomic war heroes of this country, but I couldn't be more proud to be associated with the Board and, to a person, I thank you for your efforts.

I'm joined at the table here today to my right and slightly behind me by Dr. Christine Branche. Dr. Branche is preparing to become the Designated Federal Official for the Board when I move on to other things at a date as yet undefined. But Christine will be participating and will be here and will learn the business and I'm sure come to -- to admire this Board as I have.

So welcome, and again thank you for your efforts. They are appreciated.

NUMEC SEC PETITION

DR. ZIEMER: Thank you very much. We are going to move immediately now to our written agenda. The first item on our agenda is a petition --

SEC petition from NUMEC, which is located in -- I believe it's Apollo, Pennsylvania or -- or thereabouts. And LaVon Rutherford is going to present the petition evaluation from NIOSH, and then following that we will hear from the petitioners, Patty Amino, Rich -- I believe it's Rich Paver, I'll -- do I have your last name right?

UNIDENTIFIED: (Off microphone) (Unintelligible)

DR. ZIEMER: Yeah, I'll get them right, and perhaps some other individuals. So let's hear from LaVon and then we'll proceed and hear from the petitioners.

MR. RUTHERFORD: Can you hear me?

DR. WADE: Could I make one brief announcement before LaVon begins? As is typical, I would announce conflicts of interest. Dr. Melius, who's not with us today, has recently brought to my attention the fact that he has some involvement with re-- with the NUMEC site. Dr. Melius does not feel that that would constitute a conflict, but has raised it to my attention and while that issue is being investigated I've made the determination that Dr. Melius will

need to recuse himself from discussions on NUMEC. Now he's not here today and therefore it's somewhat of a moot point, but that is an issue under discussion, and for complete disclosure I thought I would make that known to all. Thank you.

MR. RUTHERFORD: Thank you. Thank you, Dr. Ziemer and the Board, for giving me this opportunity to speak on behalf of NIOSH and our evaluation of the NUMEC SEC petition. A little background --

UNIDENTIFIED: (Off microphone) (Unintelligible)

MR. RUTHERFORD: Oh, you know, that helps -- and I was told that three times, to remove that paper.

All right, a little background. We received this petition on December 13th, 2005 -- (unintelligible) -- at it was SEC 47. On May 1st we issued a proposed finding that the petition did not qualify. On May 9th the petitioner requested an administrative review of that petition. We submitted that to the Administrative Review Panel and began the administrative review process.

In the meantime we performed an internal assessment of our own procedures for SEC. We identified a number of things that we could do better. And then Dr. Lockey's working group also performed an assessment and looked at petitions that did not qualify and they identified a number of -- a number of things that we could do better in communication with petitioners.

On December 4, 2006 the petitioners submitted a second SEC petition, that would be SEC 80, and that was for a more broader (sic) class. After a lengthy process with the Admin Review Panel, they came back to the decision that they felt that NIOSH did not provide clear justification to the petitioner for not qualifying the petition, and recommended that we qualify that petition.

On January 11th the first SEC petition was qualified, January 11, 2007. On March 28, 2007 the second petition, which was a broader class, was qualified for evaluation. The two petitions were then, in a process that we define -- were merged together. SEC 80, which was the more broader class, became the primary

petition and SEC 47 was -- was fully encompassed within the class with SEC 80.

On September 14th of this year we issued our evaluation.

Petitioner proposed classes. SEC 47, which was the first petition, identified administrative and clerical personnel at NUMEC from 1957 to 1983. The second petition, SEC 80, was all -- petitioner identified all employees at NUMEC, both Apollo and Park, from 1957 to 1983. Our process requires that we limit our evaluations to a single facility. Apollo and Parks right now -- the Department of Energy on the facility databases has identified them as two separate facilities. Therefore, our evaluation focused on the Apollo site and our recommended class definition was all AWE employees who were monitored, or should have been monitored, for exposure to ionizing radiation while working at the NUMEC Plan in Apollo, Pennsylvania for a number of work days aggregating at least 250 days from January 1, 1957 through December 31st, 1983.

A little background on NUMEC Apollo site. As Dr. Ziemer had mentioned, that the NUMEC Apollo

facility is located in the town of Apollo, approximately 33 miles from Pittsburgh. The plant was first licensed by the AEC in 1957. The AEC, the Atomic Energy Commission -- AEC radiological operations included, from 1958 through the '60s, processing unirradiated enriched uranium scrap. Also, from 1961 to an unknown date, they produced plutonium-beryllium neutron sources under AEC license.

NUMEC had a number of commercial operations, as well as they produced fuel for the Navy. 1957 to 1970 -- through 1978, high enriched uranium production; 1957 to '84, low enriched uranium production; 1961 to an unknown date, they -- uranium oxide pellets; and 1961 to an unknown date, research and development of coatings for uranium microspheres.

In addition, 1963 to an unknown date, we know they had thorium operations including thorium oxide pellet production. In 1963 they were licensed by -- through (unintelligible) to produce thorium oxide pellets. We know that they produced them in '64 and '65, and we also know that -- we have documentation that supports thorium production continuing possibly

into the 1970s.

In 1959 to 1984, laundry operations -- which included laundering for Apollo, Parks, and other nuclear facilities, and this included burning extremely contaminated anti-contamination clothing and washing control rod drive mechanisms. So they weren't exactly -- I mean it wasn't just laundry operations, is the point there.

During our evaluation NIOSH reviewed a number of sources. Most of these sources are typical in our evaluation process. We looked at the Technical Information Bulletins we have. There was no site profile that -- as petitioners pointed out numerous times, there is no site profile for the NUMEC facility, and we were actually in the process of developing a site profile during the qualification process, so a number of these issues became apparent as they -- in the developing of that site profile, which is still not complete.

We looked at -- we interviewed former NUMEC employees. We looked at case files in the NIOSH database. We also reviewed documents in the site research database, and our petitioners

were -- provided us numerous documents and affidavits that we also reviewed as well.
The NUMEC employees received internal and external exposures from the operations I've previously identified. Also on-site personnel were exposed to uncontrolled stack releases from (unintelligible) filters, leaky filters and -- and the actual configuration geometry -- the geometry configuration actually supported heavy downwash to the on-site personnel. So we have reports that support this.
Principal external exposures, they had beta exposures from uranium production operations; they had gamma exposures from thorium operations, uranium production and laundry operations. They also had neutron exposures from neutron source production, plutonium operations and work with high enriched uranium.
Principal internal exposures were uranium from uranium production operations; thorium from thorium operations, including thorium oxide pellet production; plutonium from the neutron source production, laundry operations, storage operations and analytical procedures; in addition, polonium from neutron source

production.
Availability of data. From what we've reviewed of the -- of the monitoring data -- which the monitoring data is on the X drive, available to the Board members in an Excel spreadsheet. From what we've reviewed of that data, it appears that the personnel monitoring was limited to a small group of individuals who were thought to have -- who were thought to have -- receiving the highest exposure. Most of the other monitoring data is external area monitoring data. We have external area monitoring data from 1961 through 1983.
One of the difficulties we've had with this site, and I'll address more later, is really -- monitoring data -- it's not clear from the monitoring data where -- where the activities or where the monitoring took place. Most of the documents that are listed identify Apollo on the heading of the document. However, the activities could -- could have been conducted at Parks or Apollo. But also they do not describe on most of the documentation the ex-- for the area monitoring data what they were supporting by doing the monitoring, so it's

very hard to determine where the exposure source was.

Internal monitoring data. The urine bioassay data for uranium from 1960 up through 1976 -- up to 1976; we have fecal bioassay data for uranium available from 1966 up to 1976; we have whole body counts for uranium available from 1968 through '85; we have no bioassay data for thorium or other radionuclides. In addition, all plutonium bioassay appears to be for the Parks facility -- Parks employees. None of -- we -- we found no bioassay data for Apollo employees.

Air sampling. We have breathing zone air data for uranium from 1961 through 1982, and we also have very limited thorium air samples. We have 87 general area samples and 11 breathing zone samples in over -- that range from 1963 through 1965 for the dates. We have no air sampling data for other radionuclides.

As you all -- a lot of you are aware, we have a two-pronged test. One, we look at is it feasible to reconstruct dose with sufficient accuracy. If that's yes, then we don't have to answer number two. If that's no, we have to

answer number two, is there a reasonable likelihood that the health was endangered for members of the class.

NIOSH found that the available monitoring records, process descriptions and source term data are insufficient to complete dose reconstructions for the proposed class of employees. NIOSH currently lacks access to sufficient monitoring, source term data and process information to estimate the complete internal and external dose.

Now specific issues that we found with -- that limit our ability to reconstruct dose. We found we had no monitoring data from the 1957 through '59 time period. We -- the former contractor, (unintelligible), was providing us monitoring data for individuals. However, none of that data -- there was no data for the 1957 through '59 period.

We looked at using a back-extrapolation approach where we would use later data from the '60s and work back. However, as we've seen in a number of facilities, if you do not have clear process description and clear details on what the activities that were conducted early

on, pilot operations and -- and typically we'll weed out those or identify high exposure sources and engineering controls could be implemented, so the later data may be much lower than exposures to the earlier data -- earlier period.

NIOSH -- another issue, we found that the internal monitoring data, process description and source term information was insufficient to reconstruct occupational thorium dose. We know that -- we know the thorium off-site pellet production and the -- the thorium operations -- they're not well defined. The thorium off-site pellet production, we know that that occurred. We have no details of that process and we actually have no clear description of the facilities that were used in that process at Apollo. And we also have indications through documentation that supports that thorium operations may have continued into the '70s. One of the big issues -- as I mentioned, we were in the development of the site profile when -- as these processes -- or as these petitions came in. One of the issues that was identified during the site profile was that --

that bioassay monitoring data analyzed by Controls for Environmental Pollution could not be used for dose reconstruction. There was a CEP-analyzed bioassay data at Sandia in the early '90s period. In 1994 there -- it was identified that there was potential falsification of bioassay data that was analyzed by CEP. We have reviewed the information -- documentation that's available for that, which is also available to the Board on the X drive, and we've concluded that we cannot use CEP monitoring data for dose reconstruction purposes.

I think it's important to point out that -- that we recognized that we needed to evaluate the effect to other facilities that may have used CEP data. We immediately got with our contractor to review and determine other sites that may be affected. At this point we've identified NUMEC, Sandia and, at a limited scale, the Mound facility may have used CEP data. We've also reviewed that the -- looked into our existing coworker models, and none of our existing coworker models use CEP data.

Another issue, NIOSH lacks monitoring data for

activities with potential plutonium exposures. The documents indicate that there was a significant plutonium exposure potential at the laundry facility. However, we had no data. We have no air data, we have no bio-- bioassay data for -- for employees that worked there. We also know that NUMEC was licensed to produce plutonium/beryllium sources. They took over operations for the Mound facility in 1961. And we have no process descriptions, source term information at all for those activities. Another issue is NIOSH lacks stack monitoring data to calculate potential exposure to on-site personnel for year-- operational years at NUMEC.

A NUMEC health physicist, Roger Caldwell, reported in 1967 problems associated with stack releases from the 124 stacks at the Apollo Plant. As I'd mentioned earlier, the configuration and geometry of the stacks caused significant downwash, as well as the fact that there was numerous indications of leaking filters and filters that have failed. NIOSH has some stack monitoring data, but it's very limited.

NIOSH lacks external monitoring data for laundry operations and neutron source productions, and the personal monitoring data is limited. As I mentioned, you know, if we had -- if the ex-- if the external monitoring data, personal monitoring data, clearly identified what the exposure source was that they were monitoring, it would help us in -- for our ability to reconstruct external dose. However, without that and without a process description and source term, it -- it -- our ability to reconstruct -- to be sure that we're doing sufficiently accurate external dose reconstruction is limited.

Again, NIOSH has determined it is not feasible to reconstruct -- to completely reconstruct dose with sufficient accuracy, and that the health of the employees may have been endangered.

The evidence reviewed indicates that workers received chronic exposures to internal and external exposures from production, remediation, research and development, and support activities at NUMEC Apollo.

Our -- our sug-- our recommended class -- I

actually read this earlier; I won't read it again, but it is for the entire covered period, January 1, 1957 through December 31st, 1983. Our summary table, NIOSH feels that dose reconstruction is feasible for uranium after 1959. The 1957 through '59 period, I've already identified the issues that we've had with that. Other radionuclides, we cannot reconstruct -- or cannot completely reconstruct the dose. External, beta-gamma exposures cannot be reconstructed; neutron cannot; and we can with occupational medical.

It's important to note our -- our -- we feel that for partial dose reconstructions we will use the available monitoring data that we do have for each individual, with the exception to CEP data. So if the class is added, for non-presumptive cancers we will use the available monitoring data we have to give them a partial reconstruction.

The summary there, again, and also during the evaluation, as I mentioned earlier, some of the issues that we identified with Apollo was apparent that they -- they rolled right over to the Parks facility. The Parks -- the CEP data

-- CEP was analyzing bioassay data, both (unintelligible) one year and for -- for both Apollo and Parks. In addition to other operations -- other operational issues are affected at Parks.

Therefore, based on that, we have initiated an 83.14 for the Parks facility and have identified a petitioner, and we're moving forward with that process.

And that's it.

DR. ZIEMER: Thank you, LaVon. LaVon, could you clarify the issue of external monitoring for the period of '57 through '61? Was Babcock and Wilcox the contractor --

MR. RUTHERFORD: Yes.

DR. ZIEMER: -- at that time? And they were approached for records. Is it my understanding that they had no records, or did you not --

MR. RUTHERFORD: They had no record-- they had no -- they were approached for records for any claimant that we had from 1957 on, and we've actually uncovered no records -- they had no records for the '57 through '59 period.

DR. ZIEMER: I noticed that NUMEC actually had an AEC license beginning in '57.

MR. RUTHERFORD: Yes.
DR. ZIEMER: And that would tell me that they probably had to be doing personnel monitoring, at least external. And so the question is --
MR. RUTHERFORD: Well, we --
DR. ZIEMER: -- do we know who did their badges? Was it a commercial firm like Landauer or was it --
MR. RUTHERFORD: We actually know Landauer did some of their badges, yes.
DR. ZIEMER: And has Landauer been approached for archival information on this --
MR. RUTHERFORD: We actually have -- Stu Hinnefeld is looking at Landauer now for -- for data for not only -- but for Spencer Chemical and a few other facilities. However, the data that we have from -- that -- I think it's pretty clear that it -- that we're probably not going to get that data because Landauer services were actually after 1959, the way I understand it. And so the '57 through '59 period, what we've got from BWXT is probably all we're going to get.
DR. ZIEMER: Well, Landauer did begin operation for '59, but --

MR. RUTHERFORD: I'm just saying the contract, I thought, was after --

DR. ZIEMER: Yeah, I see. Okay. In any event, it's not an issue that they didn't necessarily do monitoring. We just don't have access to it --

MR. RUTHERFORD: We don't have it.

DR. ZIEMER: Thank you. Board members, further questions? Dr. Poston.

DR. POSTON: LaVon, I just want to make sure that we're being accurate. I don't think B and W or BWTX (sic) was the contractor at the time period you're talking about.

MR. RUTHERFORD: No, I -- I -- I believe that --

DR. POSTON: And I thought it was just a company called NUMEC.

MR. RUTHERFORD: Yeah, it was NUMEC actually (unintelligible) --

DR. POSTON: Well, in answer to Dr. Ziemer's question, you replied in the affirmative when he asked you, and I just want to make sure that --

MR. RUTHERFORD: Yeah.

DR. POSTON: -- that's made clear.

MR. RUTHERFORD: Right.
DR. ZIEMER: Larry Elliott.
MR. ELLIOTT: I think it's important to note that we worked really hard to get the data from BWXT that we've gotten. We had to actually work with DOL and threaten the use of a subpoena. And once we finally employed that scenario, we got in touch with a person at BWXT that seemed to be willing and interested in helping us out. So it's our belief that BWXT does not have the '57 base data.
DR. ZIEMER: Thank you.
MR. GRIFFON: I have a question, LaVon, about the -- the class definition. I -- I see the information on the stack --
MR. RUTHERFORD: Uh-huh.
MR. GRIFFON: -- uncontrolled releases --
MR. RUTHERFORD: Right.
MR. GRIFFON: -- couldn't really quantify them, and I'm wondering if the class definition shouldn't include all workers instead of just --
MR. RUTHERFORD: Well, in (unintelligible) --
MR. GRIFFON: You know, our normal language is in there, I understand. But in this case --

MR. RUTHERFORD: I think it's -- yeah, I -- I agree with you in the fact that all personnel on site had potential to receive exposure because of the stack releases. However, if you look at the definition, it's all peo-- personnel monitored, or should have been monitored. So if you take that into consideration that they probably should have been monitored, then they would be included. So it's the interpretation of the class at that point.

MR. GRIFFON: I guess I'm just trying to make things cleaner for DOL. You know, if you define the class as all people on site, then there's no gray area where we don't -- where we're not sure how DOL's going to interpret your class definition that -- so -- I mean if you're saying you agree with me, why can't we just reword it to say all workers on the site and then there's no gray area for interpretation.

MR. RUTHERFORD: It'll -- if it's okay with Department of Labor for administering the class, you know, I -- I think we'd have to ask the Department -- 'cause what we go through is

we always submit our class definition to Department of Labor to determine if they can administer the class as defined.

MR. GRIFFON: Yeah, I -- I guess my -- my -- I just don't want to let things fall through the cracks where they -- if they're looking at this like they normally would, they might say oh, you know, administrative personnel --

MR. RUTHERFORD: Right.

MR. GRIFFON: -- unlikely to be exposed or -- or -- or should have -- monitored or should have been monitored, and they might rule them out of the class when actually in this case it's a little different scenario probably, so... You und-- you understand the issue, though.

DR. ZIEMER: Let -- let me insert here, though, I think that DOL nonetheless has to make their interpretation in light of the surrounding facts. And even if we use the terminology "were monitored, or should have been," which is the typical term that we use, I think everybody understands in this case that it is all-inclusive. And if they were doing it some other way, I think -- maybe Larry can help us,

but what -- what -- how would we -- that would become known pretty quickly, would it not, and we would have to powwow on that in some way. I'll put you on the spot here.

MR. ELLIOTT: I don't know if Jeff Kotsch is in the room or not from DOL, but --

MR. KOTSCH: I -- I'm --

MR. ELLIOTT: Oh, yeah, Jeff is here. Sorry, Jeff. He's probably better served to speak to how they would administer this class. They did review the class definition. I believe Jeff understands the evaluation findings and the circumstances around the environmental dose that we can't reconstruct. I -- I can't say how they will act on this.

MR. GRIFFON: I mean I -- I -- okay. You understand my point, if we just change the class definition, we --

DR. ZIEMER: We have Jeff Kotsch from Labor --

MR. GRIFFON: -- don't have to worry about it.

DR. ZIEMER: -- to comment on it here.

MR. KOTSCH: I think -- yeah, our knowledge of the class is that there are on-site considerations, too, so -- depending on how it's ultimately written, but we have that

understanding.

DR. ZIEMER: Thank you.

MR. RUTHERFORD: I'm -- I -- are we through with the class? I wanted to go back to another point.

DR. ZIEMER: Sure.

MR. GRIFFON: I -- I guess so.

DR. NETON: Let me just -- can I inject --

DR. ZIEMER: Jim Neton.

DR. NETON: -- just one more thing? The -- the bar is pretty low for this, as you know. It's -- the criteria is anyone who had the potential to receive 100 millirem exposure --

MR. RUTHERFORD: Yes, exactly.

DR. NETON: -- and I think -- it's not inappropriate necessarily to put in the designation that some radiation exposure should have had to have occurred to be a member of the class. I think if you say all employees, then that's a certain fact that everyone is in there whether they were exposed to radiation or not. And it does appear in this case that most site employees were exposed, but at least in this case I think it provides some assurance that there was at least some radiation exposure to

the members.

MR. GRIFFON: Well, I don't -- I -- I guess my point is NIOSH is the one better equipped to make that judgment. And if in your judgment, you know -- and -- and now you're asking -- you're turning it over to DOL --

DR. NETON: We don't -- we can't make that judgment. We know that there is -- there were effluents that permeated the entire site, but we can't predict what the Department of Labor's going to find when they start reviewing the individual cases as to where people actually worked, what they did -- you know, I don't know. It's just not predictable by us.

MR. GRIFFON: Yeah.

DR. ZIEMER: Okay. Brad Clawson and then Phil Schofield.

MR. CLAWSON: I understand what you're saying, but you know, I'm just reading through the little profile here and I understand about a fire and so forth like that that affected everybody throughout that whole plant. So my feeling is, you know, I've got to agree with Mark is all the people on this should have been covered by this because there's no -- you know,

the workforce is out there, too, but this fire created quite a bit of havoc there, too. And so I -- I don't think that you could really say that just one class, you know, would -- would cover that. I -- I've got to agree with Mark that everybody there...

MR. RUTHERFORD: Well, I think if -- if -- I totally agree that -- that -- that on-site personnel are -- you know, are -- were exposed. But they should have been monitored. Then that means they're part of the class. I think the import-- or the thing is -- to look at is what if there was, you know -- you know, what if there's a person that worked for NUMEC that had to work -- and I'm just using this as an example --

MR. SCHOFIELD: All right.

MR. RUTHERFORD: -- okay? I have no clue that -- that worked six miles away in an administrative office and never, you know -- you know, that's the -- that leaves that opening that it wou-- could be evaluated that they weren't exposed. Okay? I think if the class is administered -- you know, if they read the report, all on-site personnel should be a

part of the class, so...

DR. ZIEMER: Okay, thank you. Phil?

MR. SCHOFIELD: Brad already addressed, you know, what I was going to say.

DR. ZIEMER: Any further questions? LaVon, thank you --

MR. RUTHERFORD: I want to point out another thing I don't think I answered very well, and that is even if we had the external -- if -- if the external monitoring data is available for '57 through '59, you know, it's not going to change the class definition for internal exposure. Plus, if we do uncover that data, we will use it for partial dose reconstruction.

DR. ZIEMER: Understood.

MR. RUTHERFORD: I mean as (unintelligible).

DR. ZIEMER: Right.

MR. RUTHERFORD: Okay.

MR. GRIFFON: Just one more...

DR. ZIEMER: Mark.

MR. GRIFFON: LaVon, just to follow up on the partial dose reconstruction, you -- in -- in one of your slides I think you said you had some data that would have been the highest exposed.

MR. RUTHERFORD: They believe to be -- they --
MR. GRIFFON: They believe to be the highest exposed --
MR. RUTHERFORD: Their monitoring approach appears to be -- their external monitoring approach was to badge -- to badge people they thought would get the highest external exposure.
MR. GRIFFON: So -- so am -- am I -- if you're doing partial dose reconstruction, is it only going to be for data that you find for the individual, or would you use this --
MR. RUTHERFORD: It's only going to -- data for --
MR. GRIFFON: -- highest exposed to apply in any way, or no?
MR. RUTHERFORD: We would use only data we find for the individual.
DR. ZIEMER: Thank you. Now we'll hear from the petitioners, and let me start -- Pat -- Patty, do you want to kick this off or who's --
UNIDENTIFIED: (Off microphone) (Unintelligible)
DR. ZIEMER: Thank you.
(Pause)

MS. AMENO: Good afternoon. I would first like to -- I'm waiting for my technical part to come back in. He had to take care of a matter in the restroom. I would like to bring up my technical and my co-petitioner, please, Rich Parler, and introduce to the distinguished Board. Richard filed the petition originally that was denied, and then he refiled and then merged in.

Our technical experts on this, Mr. Tom Haley, some of which I'm sure that you'll be able to identify in his -- his bio, it's very outstanding.

At this particular time I would like to start out with our technical witness, please. Thank you.

(Pause)

MR. HALEY: Hello, my name is Tom Haley, and I want to apologize first for scaring Patty so much, but we -- I left Pittsburgh very early this morning and I had peanuts for breakfast, and I'm not used to that so I had to quickly leave the buil-- the room and I'm glad to be back and I'm glad to be able to address this -- this panel. Dr. Ziemer, I, too, like to

reminisce at my age -- I'm 72 years old -- and I -- in this case, my reminiscence will be giving you some technical information regarding what happened at NUMEC as I lived it for 11 years -- 11 and a half years. And so -- and it's a serious remensision (sic). I, like you, I think, have a good memory. And so what I'm going to do is support the report that was given by NIOSH, and I'm going to go past that and I'm going to talk -- I'm going to give you some information about what really happened there, as I lived it.

Now I -- let me see what -- oh, I want to have you turn to -- behind the third blue marker here. And this seems to be out of order, but we found out this morning that LaVon was going to talk about -- give you technical details and talk about the report first. My comments are based on my review of the report, and my additional comments are based on my activities and observations as I lived them at NUMEC.

The -- I have a -- just about myself. I have a BS in chemistry from Carnegie Tech and when I -- I (unintelligible) in nuclear processing, I worked at Portsmouth, Ohio for five years, the

gaseous diffusion plant. I worked at NUMEC for 11 and a half years after that, a great training ground on -- on -- in nuclear technology and other technologies. I've had -- I've got two patents from NUMEC and I've got two other patents from Westinghouse.

I left NUMEC in 1971 -- thank you for my glasses. I left in 1971 and I came -- and went to Westinghouse and I've been there -- I was there for 23 years. I retired from Westinghouse in 1994. I'm published. I said I have a couple of patents from NUMEC, a couple of patents from -- from Westinghouse, and I've got a total of 40-some years in this industry.

Now -- now I have -- these comments are directly -- I have six comments directly attributable to LaVon's report.

First, and in one section he -- they state that all the op-- all the operations conducted at the NUMEC Apollo site involving radioactive materials during the entire history of the plant's operation are considered relevant to the proposed class. The summary list that LaVon had in the report is good, it's generally complete, but it's not complete. I -- my job

at Westingh-- NUMEC, excuse me, entailed project management and -- and project engineering, all the processes that we had to develop -- that we developed there. We had three engineers who -- who did that, and I'll give you some detail in a second on that one, but the summary list, as I remember it -- and I haven't looked these up; these are from memory -- that -- that LaVon had is generally true. Those are correct. But there was a lot more things which the -- which the -- the report alluded to and that I have to point out to you, they're all activities that are directly related to exposure of the workers. I'm not going to go through them all. You can see them on the page, about production of uranium microspheres and -- and production and coating of uranium, development -- well, this one here, development and operations of uranium scrap recovery proc-- recovery processes. I'll touch on that in a minute. But the production and development of coated uranium materials using electron beams is one of the things I got a patent for, but those are things we did. We advanced the technology continuously. We did

the development of the processes. We developed new processes. We got a lot of information on -- on scrap recovery and -- and -- and that -- and the operations regarding recovery of uranium from -- from solutions and the extraction and so on of uranium. So there are many more development and small production processes that aren't listed there, all of which -- to some degree, high or low -- when put in production did contaminate personnel and expose the personnel to the radionuclides in question.

So in -- next top-- my next comment is with regard to the smaller R&D operations of NUMEC and Apollo are not very well documented. Absolutely they aren't. Some are patented and documented, but the processes themselves aren't documented. And they're based on things that were developed other place (sic), but they were also developed by myself and a couple of other engineers. And they were -- after they were developed -- in the laboratory they only built the prototypes in these big laboratories. These aren't laboratories like you see stainless steel tables and all that kind of

stuff and -- with the (unintelligible) and the (unintelligible) flasks and all that kind of stuff. Yeah, we had those, but these were things -- these are laboratories where we actually did the development and did the -- did the solvent extraction, we did all the things necessary to develop the parameters that we could use (unintelligible) pilot plant, and as tho-- as those parameters were redefined, we then moved to the production facilities. That's the way it worked.

So I want to point out that, you know, I -- scientists here will recognize (unintelligible) that through the course of those activities, as in any development occurrences, we had things like spills and we had overflows on floors or lab benches, hoods. Overheats -- you know, crusty hot-plates with uranium dried on it sitting on the lab benches, sitting on the hoods, all open in the -- in these big laboratories that were where we developed the processes. And -- and the personnel were constantly exposed therefore to ionizing radiation and internal and external contamination, constantly -- constantly. I

worked beside my technicians and we all wore lab coats. And as we got into the stages where it was slurried and we get ADU and other types of -- of slurries and -- that's a -- we were -- and it was on our lab coats. Uranium was on the lab coats, and we'd take them off before we'd leave the rooms, but in any case, that just occurred. That's the way it was.

Then beginning in 19-- oh, by the way, the only protective gear we had were safety glasses, lab coats and gloves. We did not wear dosimeters. We were not iss-- issued dosimeters. I never had a dosimeter. You will never see the refer-- anything for me showing that I wore a dosimeter. I just didn't. I don't know whether I had something on the back of my badge or not. I was never told what -- I just -- the job was to get it done, whether you had a dosimeter or not.

Also, number four -- oh, I forgot three. Beginning in '61 the processes for scrap recovery we developed were for UO2-Zr. Uran-- you know, recovery of uranium from UO2-Zr., UO2-Alumina, UO2-BeO and more. There was some classified stuff, but this was -- this was

enriched uranium, highly enriched uranium which we developed the processes for in these big -- in our laboratories on the lab benches, in the open and under hoods, especially when the -- when the gases coming off the processes were very toxic; they went up the hood. All these processes exposed personnel to continuous radioactive contaminants.

Now we talked about the data, the urine and fecal bioassay, it said that the -- it -- it should be -- well, I'm telling you, most of this data for urine and bioass-- bioassay and zone monitoring should all be considered suspect, even the results you have, and that's beside this CEP data that was -- was -- was referenced here in the report.

DR. WADE: May I just stop you for a minute? Could you position the microphone in a way -- you're cutting in and out very badly.

MR. HALEY: How's that?

DR. WADE: Well, maybe -- you're going to have to say some things.

MR. HALEY: Why don't I just hold it? How's that?

DR. WADE: If you hold it close.

MR. HALEY: (Unintelligible)
DR. WADE: This young man's going to help you. People on the phone are say-- are having difficulty hearing -- Board members, as well. So again, Board members, when you do make a comment, make it directly into the microphone.
MR. HALEY: Okay. This is high technology for me, as old as I am. Okay, can everybody hear -- hear fine? How about on the telephones, you people out there? Thank you.
Anyhow, where was I? Oh, I'm talking about the fecal and -- I mean the urine and fecal bioassays and the zone monitoring. I said it should all be considered suspect. And besides the CEP data, if you know what the CEP data is and what the report says about that. The submitters -- the submittals for the fecal samples and the urine samples were all com-- I mean not all, but mostly compromised, especially when samples were taken home -- I mean actually containers for samples were taken home and the workers were told to get some samples of fecal matter and the urine samples overnight and then bring it back in the next day. Well, the workers who were exposed and

were getting this -- this -- (electronic feedback).

Now I don't think I did that. How we doing back there -- how we doing back there sin-- okay, the mike's off or on? Okay.

The thing is that it was common knowledge that family members contributed to those samples. And the reason they did that, if the samples came back and showed information that indicated that the worker had been exposed, he was sent home and not paid. So in order to be able to work, he made sure that the samples were doctored to the point -- it's common knowledge that that happened. We -- we knew it, but whatever -- for whatever reason, this happened, and my point is all that information is comprom-- I mean all the information is compromised. I don't -- I can't say it's all -- it's all in error, but I know it has been compromised.

And then again, when bioassay samples were taken at the plant and they would -- people would give -- and the workers were given containers to take into the men's room, they got their friends to come in and they would

switch samples for somebody who hadn't been working in the radioactive ar-- I mean in a contaminated area. That happened. I saw it happen. It did happen.

Now -- and -- and the air samples, I have to say those, too, were compromised. And they were -- in this way, in this way. The workers were working in glovebox, on the benches, every place else, they had -- they were taking air samples. Well, for the guy in a glovebox, he's stuck there and he's tired and he hates that annoying buzz. He hates it. So what happens is somebody comes along and takes it and unplugs it. It doesn't buzz anymore. It's also not taking samples anymore. Now at the end of the shift, somebody -- I mean when they get ready to leave, they plug it in so that they can show it was there. Well, the HP people don't know that that sample hadn't been taken for eight hours or six hours or whatever. They just don't know. So I'm saying that those, too, were compromised. Not all of them, but those were compromised as well.

Now in section -- well, in the evaluation report -- I'm going to have to read this -- it

says that the NIOSH evaluation did not identify any evidence that would establish that the class was exposed to radiation during a discrete incident, or similar condition resulting from the failure of radioac-- radiation exposure controls, likely to have produced levels of exposure similarly high to those occurring during nuclear criticality incidents. NIOSH is not aware of any report of such an occurrence at the facility during this period. And I can understand that they wouldn't be aware because I don't think that there were reports written about those, but I'll give you some first-hand information on two things that I was directly involved in that did expose workers to extremely high radiation, and it should be documented if it isn't. And this is the -- and this is true, first-hand information.

There were two occurrences that meet the criteria listed in the -- in the repor-- or in the -- in the NIOSH report. The first one is that -- and I participated in these directly -- is a fire in the nuclear materials unit. Now this is a special one. We've had -- they had

fires -- from 1957 till the time I left there were fires in little buckets with UO2 spontaneously combusting and so -- especially during those first three years when they were trying to get up and running, and not -- and -- and trying to train people who were former steel workers and seemed to be treating the material -- the radioactive material the same as they would steel. That's what they were trained to do. They didn't understand the importance of how to handle these radionuclides and the radioactive material -- or whatever. So the first was a fire in the nuclear materials vault, and I'll tell you about that. This fire was discovered to be caused by containers of highly enriched uranium, uranium carbide, and it was -- it exploded. A bottle -- or you -- picture the vault against the wall. Here's these -- these square shelves, and in the mid-- and -- and criticality -- I mean cri- - it's -- it's designed to prevent criticality when you place a bottle -- a plastic bottle of uranium carbide in the middle of that. Now it's stacked and there's -- and there's -- it's horizontal and vertical. Now what happens?

Okay, a bottle blew up. Now uranium carbide oxidizes with great -- great intensity, very hot. What happens, it blow-- it blasts smoke everywhere. The -- the stuff's melting through the metal platforms, the metal -- metal -- and coming down and exploding other ones and melting down. Now I've got a report in here on that. I mean I just wrote it up and stuck it in the back as an enclosure 'cause I don't think we have enough time to go into it, but I will tell you that this was a -- this was a very discrete, serious accident and it exposed the -- our class to a health endangerment involving levels of exposure similarly high to those occurring during a nuclear criticality. We had to keep it from going critical. We had to run in. We -- myself and another fella ran in after they drug the vault custodian out, and his report's in there, too. But they drug him out to get him out of there because of what was happening. Myself and another engineer -- this was on a weekend. There wasn't a lot of people in the plant. They ran in -- we ran in and shoveled, you know, metal X on top of it to try to smother it. There's -- there's something in

the back talks about that. I won't go into any more, so details on that accident are provided in enclosure one and two to this document. And enclosure three -- A and 3B are letters from the AEC to the NSA, who was investigating this because of the loss of uranium, regarding the amount of U-235 lost. They talked about how much -- three kgs of -- this was lost here and so on. They had to wash the walls and they got a kg and a half off those walls. They had to remove the roof; they got it off of that. They got it off the floor. They got it off of other stuff in the -- in the vault and the -- now they -- they check us out. They do nose swabs, they do ear swabs, they take us into a shower room and scrub us all down and spend a whole day scrubbing us so we can get to the point where we can go home with coveralls on. You know, that's exposure. They ended up removing the walls and -- and it was a -- if there's a kilogram and a half of U-235 on the walls they recovered, how much was breathed, how much was on the skin, how much was absorbed. And that's -- that's -- I don't think you have that information. I don't know.

The second accident, an 11-liter, 5-inch diameter plastic bottle full of highly enriched uranium, uranyl nitrate in this case, it was about 380 grams per liter. I know what the concentration was 'cause it was within a specification that we were trying to adjust the acidity and other things like that, and we had them in the carts in our lab, so -- and under the direction of an engineer, a person -- a technician took it out and dumped it into a tank. That's a lot of uranium. We don't know whether it was just one or a little bit more, but a criticality event could have occurred had that uranyl nitrate assumed a geometry that would have caused it to go critical.

So what did we do? We sent people down to the -- to the town to get all the 20 Mule Team Borax they can to be able to -- to get it to -- I mean to prevent -- to poison it so it won't go critical. And then -- then there -- then there had to be some operations done to be able to try to recover some of that uranium. I wasn't -- I had to go -- I was sent home, as others -- after we got cleaned up, but we were -- the people working in that area received a

very high dose of -- of exposure. So there's more words on that back in the enclosure. I won't go into it, but --

And lastly, at least during my period with NUMEC, uranium -- enriched uranium appeared to be handled in basement labs in the Warren Avenue office building. That was right across the street, and Patty's going to show you a big board showing what the proximity of the plant was to the office building. But I know of instruments that were developed there and -- and -- and in the basement and observed what the -- what appeared to be uranyl nitrate compounds present. I never saw any dosimeters at all issued or worn by any personnel in that building. Yet during the preparation for demolition when they were recovering -- when they were closing things down, they -- they had very high radiation levels in sewer pipes, behind floor molding and wooden floors, and about three kgs were lost -- oop, that's something else. But they found all that information -- they found all that stuff when they -- was demolishing the building, indicating that something had gone on there,

something had been tracked through and perhaps something else had happened to -- to cause material to come from the vents or whatever over to that area 'cause it's so close. But there was some -- I have back in the back a -- in the enclosure 5, I believe, a -- a newspaper report quoting -- to the -- the president of the environmental compliance organization saying that findings in the building prove a danger to the workers. Certainly, but the workers over in that building never wore dosimeters.

Now at the beginning I said -- well, my comments are intended to support the NIOSH proposed class recommendation, and I've also identified two discrete occurrences causing exceptional high levels of exposure to NUMEC personnel. If you continue to follow the current protocol that I believe you have, as I understand it, the exposure effects of these occurrences may well be the determining factor in the dose reconstructions for applicants who may have less than the 250 days or may have cancers other than those listed in the Act.

And I want to make it clear that my comments to

the evaluation report, and with all due respect to -- to the -- to the NIOSH report itself, don't even come close to adequately describing the true deleterious working conditions leading to the exposures that the personnel experienced. I read that 'cause I don't want to be misquoted.

Now given that, the NUMEC Apollo facility was a commercial endeavor. Deadlines had to be met and pressures to complete and ship final products were very strong in order for the company to -- to get paid and make payroll. Expedience was often the highest priority. This was not a GOCO, a government-owned contractor-operated, facility. It was a cost plus fixed -- fixed fee contracts. They had to make a profit, and to do that they had to -- they -- whatever they had to do. They had to make a profit to meet the payroll and get back on the invest-- of their invest-- get back something for their investors. So health and safety rules were in place, but often circumvented by the workers to meet priorities. While the management discouraged this, it nevertheless happened. It just happened.

That's the way it was back in the early '60s. And it was just -- well, as a result of this and other factors, exposure data is either incomplete, nonexistent, or at least suspect. Some documentation of incidents is missing or incomplete or ambiguous, at best, and makes radiological effects on pers-- on personnel almost impossible to determine.

In addition, processes had to be developed and implemented on a large scale for the first time. And mistakes were made, as one might expect in these kind of operations. That just happens when you're doing development. And the mistakes, when you're working with uranium, can be disastrous. But mistakes were made.

For our purposes today I must say that the workers were subjected to continuous exposure to radiation that varied in intensity depending on the operations they were performing or the accidents in which they were involved. So when you think about a class, and you all were talking about looking at individual cases and so on, yes, that's true. But there were some -- I mean -- but still, it -- as I said, it depends on the operations they were performing

and the accidents to which they -- in which they were involved.

And now while I concur with the NIOSH recommendations, and I hope that it moves forward with all expediency, based on -- well, at least my comments and Mrs. Ameno's -- Ms. Ameno's presentation later, I wish to make the following recommended -- recommendations for your consideration.

One, the lack of exposure data from operations and accidents should not be cause to preclude those who have cancers or who have died from cancers not listed in the Act. Data needed to determine exposure levels does not exist.

Those affected of em-- those affected employees should not be included (sic) from a class and lose the right of compensation, as Miss Ameno -- Ms. Ameno will also attest to in her presentation.

Two, office employees in the Warren Ave. office building should continue to be included in the class under consideration. They were exposed. It's clear they were exposed, and they had no dosimeters. And they -- again, I ask they be included in the -- in the eval-- in the class

under consideration.
Now I -- there's some stuff behind that that I alluded to in -- and whatever, but if you have any -- I want to make sure you understand one thing. I've been in this business my whole life. I've been to all the national laboratories, especially Hanford, the Engineering and Development Lab which was run by Westinghouse when I was there. And I've -- I've visited them on the various (unintelligible) and whatever, especially on waste management activities and -- and -- and while I worked as an employee for Westinghouse and as I worked for -- an employee for NUMEC, so I could go out and learn what's happening elsewhere. And I've never seen any operation ever, anyplace, since I left -- before I went to NUMEC or after I left NUMEC, that was -- that was -- let me say in a -- conducted in a way that continually exposed the workers to radiation and -- and continually to expo-- exposed them, no matter -- I mean on -- on a constant basis. The report says that they're recommending it because -- they should consider the class because it's -- there is a -- well,

I'm saying the class should be considered an acute operation, not just one that causes a constant oper-- I mean a constant exposure, but there were acute exposures. There had to be, for the type of accidents that occurred. And with that, I -- I -- I close. If you have any questions...

DR. ZIEMER: Thank you very much. I'd like to ask for a clarification, either you or perhaps LaVon Rutherford, on the Warren Avenue office. Is that part of the Apollo Plant that we're talking about or -- where is -- where is that in this?

MR. HALEY: May I -- may I answer that?

DR. ZIEMER: Yes.

MR. HALEY: Ms. Ameno will have in her presentation -- we have -- we have a -- well, I can show it to you here --

UNIDENTIFIED: (Off microphone) (Unintelligible)

MR. HALEY: Well, I'll hold it back for a second, but --

DR. ZIEMER: Basically I'm asking if that's included in our definition. I -- it was --

MR. HALEY: Yeah, it's within 30 feet --

DR. ZIEMER: Oh --
MR. HALEY: -- of the front of that building, and it -- it -- and it was exposed to effluents from the stacks.
DR. ZIEMER: That's what I was really asking, so LaVon, is it your understanding that that building is covered in the recommendation from NIOSH?
MR. RUTHERFORD: From -- and I -- I can't remember actually, but the -- and is that the administrative building that was -- yes.
MR. HALEY: It was the administrative building on the corner --
MR. RUTHERFORD: Yes, that's --
MR. HALEY: -- (unintelligible) by Warren Avenue, yes.
MR. RUTHERFORD: Yeah. I believe that was within the site boundary, yes.
DR. ZIEMER: Okay, I just wanted to make sure the -- that we're on the same page on that. It wasn't clear from your recommendation that -- whether or not you were implying that that had been not included or whether that was, and apparently it has been included.
And then just as a comment, I just want to make

sure that you're aware that the list of cancers that is used has been specified by Congress.

MR. HALEY: Yes, I am aware that -- I am aware of that.

DR. ZIEMER: Just so you -- you understand that the Board --

MR. HALEY: Right.

DR. ZIEMER: -- is not in a position to change the list.

MR. HALEY: Right, and --

DR. ZIEMER: Yeah, I just want to make sure you're aware of that.

MR. HALEY: Yes, I am, and as I understand it --

DR. ZIEMER: Yeah.

MR. HALEY: -- they -- they do -- they try to do a dose reconstruction for those types of cancers that aren't listed in the Act.

DR. ZIEMER: Right.

MR. HALEY: And -- and if -- and what I'm asking for is that the accidents that occurred here and the exposures, the intense exposures during the accidents that occurred, should be considered during that dose construction.

DR. ZIEMER: Thank you. Okay. Board members,

other questions for Tom?

MS. BEACH: I have one.

DR. ZIEMER: Josie.

MS. BEACH: I don't know if you're the right person to ask, but the laundry, was that done on-site or was it off-site?

MR. HALEY: It was on-site, yes. It wasn't in the main building, but it was -- it was off to the side of the building at the end of the parking lot. Yes, it was included.

MS. BEACH: Thank you.

MR. CLAWSON: I'm just looking at this, and what's the difference between Apollo and Parks?

MR. HALEY: Oh, well, about what -- 11 miles, is it?

MS. AMENO: (Off microphone) (Unintelligible)

MR. HALEY: About two and a half air miles, but let me -- yes, good point, but the -- the Parks site was -- their license initially was restricted to plutonium processing and it -- and it was done there. Ultimately -- whether it -- the license changed or whether it was initially passed for this, they did do uranium fuel. They did make uranium fuel for a -- for the Navy nuclear program up there, using a

process that I'm also in -- in -- have a patent for. But they moved -- after I left, they moved that up there. I don't -- so they had -- outside of the normal processing of plutonium facilities, they had another building making uranium fuel for the Navy nuclear program.

MR. CLAWSON: So La-- LaVon, on this --

DR. ZIEMER: Speak into the mike, Brad, so everybody can hear you.

MR. CLAWSON: On this, then, for this SEC -- it's just for Apollo. Right?

MR. RUTHERFORD: Yes, because of the rule require-- since they are listed as two separate facilities, Apollo and Parks, that this is only for Apollo. But we have recognized the issues with Parks and are moving forward with the 83.14 to -- to include Parks as well.

MR. CLAWSON: Okay, 'cause I was wondering how are we -- I'm sure that there was people that went back and forth and --

MR. RUTHERFORD: Oh, yes, the issues that we've identified for Apollo -- a number of those issues affect Parks as well.

MR. CLAWSON: Okay, thank you.

MR. HALEY: Just as an example, sir, I worked -

- I -- I would go up to the plutonium facility to teach them how to use the process of coating plutonium, in this case, or -- or (unintelligible) materials using plutonium, with the electron beam process. We set that up there. And -- and workers moved back and forth some. Yes, they did, and -- so they were exposed in both places.

DR. ZIEMER: Thank you very much.

MR. HALEY: Thank you, sir.

DR. ZIEMER: Patty, back to you.

(Pause)

MS. AMENO: Testing -- can you hear me? Everybody can hear me? I just want to make sure that this doesn't fall all over the place here.

(Pause)

I would like to start with the dedication, if I may. In the spirit of love, this testimony is dedicated to all the NUMEC workers who have, are and will battle mankind's common enemy: cancer and other diseases. For your heroic work service, you are greatly appreciated. I will never forget, nor will I let others forget, the contributions and sacrifices you

have made for our country.

My name is Patty Ameno, and I would like to thank this distinguished Advisory Board for hearing the NUMEC case today. In addition, I would like to acknowledge a very special thank you to NIOSH for their time-intensive investigation and recommendation of SEC status for the NUMEC Apollo site. Thank you very much.

I am retired from the United States Navy and a former Department of Defense criminal investigator. But more so, I am the long-time environmental activist that has been involved for years with the NUMEC sites in Apollo and Parks Township, Pennsylvania. Eighteen years, to be exact. I will tell you that my training aided greatly as I combed through several million pages of documents over the years on these sites.

Photo one is -- right there, Tom, you have it -- this is, or appropriately speaking, was the NUMEC site in Apollo. And I grew up directly across the street from the site, and that was my house. I never knew what kind of business it was, or what all the 55-gallon drums were

that streamed its fence line -- right over here -- and I guess I can -- the secret's out. Everybody knows I'm not a natural blonde now. Can you see the drums on this?

I was literally the girl next door. My parents owned and operated an Italian Deli adjacent to our home that was a favorite lunch spot for the NUMEC workers. The vast majority of the workers lived either in Apollo or in a neighboring town. And for the most part, we all knew each other.

Though the NUMEC plant and office buildings are now gone, one can continuously see the legacy that the plant, with great measure, bestowed to its workers, a legacy of cancers and diseases. NUMEC, which was once hailed as the world's largest and privately-owned producer of plutonium, uranium and experimental fuel for the Naval Reactor's Program, was plagued with problems and compromise. The workers were not monitored at all from 1957 through and at least to 1960. Enclosure 1-A illustrates that in 1958 absence of monitoring and sampling of 21 workers that were exposed to, quote/unquote, radioactive dust and radiation, showing that no

samples were taken and medical referral was not given.

Enclosure 1-B is dated February 15th and 16th of 1962, which clearly shows 400 -- 400 workers that were exposed to uranium, plutonium and beryllium. However, on this occasion there was testing, if you want to call seven samples out of 400 workers exposed sampling.

NIOSH identified NUMEC's main and initial AEC/NRC license as SNM-145. However, NUMEC had several other licenses at Apollo running simultaneously. Once such license was SNM-135, which on May 25th, 1969 was amended, quote, to authorize the discharge of radioactive material from any stack effluent of your Apollo Uranium Plant in concentrations up to 100 times the applicable limits.

That's an astonishing 10,000 percent increase, and it was allowed to run as such for at least one year. Considering that the Apollo plant had 124 stacks, workers didn't have to be inside to get dosed really good. The parking lot for the plant workers was within the plant boundaries, and during the decommissioning of the facility in the early 1990s the parking lot

was found to be highly contaminated. There was never any surveys done on the workers' vehicles that continually parked in that lot, nor were any of them ever washed off before leaving that plant facility.

In addition, the office building was only an approximate 100 feet from the plant building, and in the summertime, with the absence of air conditioning, the windows on many of the offices were opened and are suspect to that 10,000 percent increase. Furthermore, in 1972 a release from the Apollo plant for a seven and a half hour duration was 102,866 times the limit. Photo enclosure number three shows the location of the plant in proximity to the office building, along with fallout collectors positioned directly in front of the office building and at other locations. And enclosure number three shows the NUMEC exhaust stack locations. Please note that the location of the majority of the stacks are concentrated to the plant's end that is in proximity to the office building.

And directly in between the office building and the facility is a 35-foot road called Warren

Avenue, or otherwise known as Route 66. Approximately 12,000 vehicles go through there every day, and then we have to think about roadway resuspension as well.

On November 29th, 1972 AEC compliance officials met with NUMEC management because, quote, compliance was concerned about the reoccurring (sic) nature and seriousness of NUMEC violations, end quote. The group later met with the AEC's J. P. O'Reilly, who started the meeting by stating, quote, NUMEC has been the worst offender of AEC regulations over the years, end quote. That designation was extremely telling of NUMEC's total and consistent disregard for regulations and worker safety over time. And photo number five is a testament to that continuous and blatant disregard. That would be this photo right here. In it is worker [Name Redacted] and [Name Redacted]. And both of these men are standing seven feet deep in what is known as burial trench number one at the Parks Township waste dump. This dump and its burial trenches are extremely dangerous, with buried contents of, but not limited to, uranium-235 and

plutonium, with unknown -- unknown amounts of high level material. That dump consists in totality of approximately six tons of nuclear and chemical waste. It may be a different site, which is only two and a half air miles down the same road from Apollo, but Apollo and Parks shared the same management and organizational personnel, and the workers were interchanged between the two sites on a frequent basis, and the trucking between the two sites occurred on the daily basis.

From 1973 through 1974 at NUMEC at -- on the Apollo site the AEC noted 333 violations of the ventilation requirements, along with the company's failure to correct earlier problems. In addition, State inspectors observed emissions from the Apollo plant on numerous occasions because the company had shut off the scrubbers.

NUMEC's Apollo laundry area was a nightmare. Document enclosure number four, a company confidential document, clearly and in layman terms, without technical editing, outlines the continued seriousness of the problem and worker exposures in that are had to be phenomenal.

The document states, and I quote, health and safety problems are becoming critical. The exposure problem is serious. High plutonium levels in the laundry means someone is being exposed at the plutonium plant. There are high levels of plutonium and mixed fission products in the laundry. Evidence of our high discharge is easy to find. Imaginary dilution is not satisfactory. We will be found out and could subsequently lose our license. The delaying actions carried out for years are not going to pacify the State and federal authorities any longer.

NUMEC employed thousands of people over the cradle to grave time period of 36 years. Many of these workers were on a revolving door layoff type of cycle, especially during inspection scrutiny. When demanding contract production was ongoing, the main workers that got cooked were laid off and new hires were brought in. NUMEC would have as high as, quote/unquote, 100 percent worker turnover every three months. When the new hires got cooked, the main workers were called back. This would effectuate NUMEC's goal for contract

deadlines without having to pay the worker that was cooked to be in another area. Enclosure number 5-A addresses this problem and the problem of NUMEC's policy of non-inclusion of skin dose testing for the workers. Enclosure number 5-B, a sworn statement from three NUMEC nurses, attest to the worker turnover and the horrific conditions that they themselves were exposed to.

In 1977 an Oak Ridge National Laboratory team did an assessment that based their findings from information received from NUMEC. It stated that, quote, the Apollo facility may have a significant adverse effect upon the surrounding environment, end quote. That being the case, one can safely conclude as to the adverse effects to the NUMEC workers. Former NUMEC worker [Name Redacted] knew quite well of the adverse effects and the toll it took on him physically and professionally. He outlined, in his April 4, 1979 letter, the professional toll. Quote, our environmental reports are not justifiable by facts. By law, we are to maintain records on all radiation exposure of our employees and others, past and present. We

do not. By law, we are to submit exposure analysis to the NRC. We do this. However, it has no relative bearing to a person's total exposure, but it satisfies the NRC. By law, we are permitted to send -- we're not permitted to send out false reports to exposed victims or others. We do. By law, we are not permitted to place a person with an overexposure back into a known radiation field until that exposure is satisfied. However, we ignore this.

The violations of worker safety did not stop in 1983. During the decommissioning of the NUMEC site in Apollo the workers were once again exposed in a huge way to contamination. Additionally, contracts -- contractors that were hired by NUMEC were not given the required 40-hour OSHA site safety training or certification. They were not provided with monitoring, safety gear or exposure information, and were not informed of the level -- levels of radioactive and chemical contamination. Also during the decommission, in the office buil-- building, radiation contamination in a pipe was found at levels of

22,328 picocuries of enriched uranium per gram. The basement of that office building contained the lab where at least R&D, research and development, was being conducted.

NUMEC was continuously defiant in adhering to laws, regulations and directives, professional standards and worker health and safety standards, and therefore habitually violated them. NUMEC was the poster child of sloppy housekeeping, the derelicts of health and safety, and a disgrace to the Code of Professional Standards. In any other place this would be descriptive of gross negligence. Nonetheless, NUMEC, which was an important source of our country's nuclear power plants such as TMI, of Naval fuel and weapons material, continued to be allowed to operate for over 40 years by having the needed and necessary licenses and permits continuously amended. NUMEC was wrongfully able to circumvent the law through this process. And while NUMEC fired the gun, the government drove the getaway car.

There is an enclosure, and it is by -- it's a document by a former president of NUMEC, [Name

Redacted]. And in it he states compliance -- oh, I'm sorry -- he states, quote, we are guilty. If the memo -- if the information contained in these memos is accurate, we are guilty of gross irresponsibility. We are out of control.

That is the president of NUMEC then speaking in that present day. The information that he had in front of him, that we may not have, and for that I have to ask then who are we.

I would like to make it clear for the record that I am not an anti-nuclear activist. I would like to believe that many advances in medicine, science, space exploration and other peaceful fields are benefiting mankind.

However, and as you well know, the first generation of these facilities were afflicted with many problems, but none with the totality of the problems that engulfed NUMEC, that which would make textbook instruction on how not to run a nuclear facility.

And so I will say to you now it is with, through, and because of NUMEC's historical legacy; the totality of circumstances of continued violations of monumental proportions;

the unreliable, the conveniently unobtainable and the unbelievable lack of monitoring; the continued exceeded emissions and the dangerously sloppy housekeeping, all of which that may have intensified the chronic exposures, that I respectfully ask this distinguished Board to approve NIOSH's recommendation of SEC status to the Apollo site with expansion of the proposed class to include the named job descriptions of the administrative, clerical, and security guard workers; and that the Board add NUMEC, please, to the less than 250-day rule list that you are currently considering and evaluating other sites for.

May I have my water, please? Thank you.

(Pause)

Forgive me. Finally, as the honored voice for the workers of NUMEC sites in Apollo and Parks Township, I can tell you that they have been totally abandoned by the companies that paid meager wages and left them void of insurance coverage, and abandoned by the very government which they were proud to serve during the Cold War. The NUMEC workers have always been the

true stakeholders, and have been equivalent to veteran soldiers in their own right. Veterans who committed themselves to the battle of the Cold War; veterans who have watched their coworkers, friends, family and loved ones perish from a silent and continuous friendly fire, a friendly fire that's resulted in tumors, cancers and other diseases; veterans that have been left, in an un-American way, on a battlefield without any reinforcements; veterans that will never have a parade in their honor, or be awarded a Purple Heart for the nuclear tour of duty service, even though in our hearts hundreds upon hundreds like [Name Redacted], [Name Redacted], [Name Redacted] and [Name Redacted] and so many more should posthumously be awarded a comparable to the Congressional Medal of Honor for the battles they fought, single-handedly, with courage, against cancer; veterans that for over four decades unknowingly hosted and embraced, at the bequest and reassurance of our regulatory agencies, the cold-hearted and uncaring companies that bombarded our land, causing us to have literally lost our ground. But they

are also veterans who will never, ever, give up the fight in trying to reclaim it.

And so to this Board, this distinguished Board, you are charged with the responsibility regarding the very people who have helped pave the way for those in this field, and so I ask you now to rise to the occasion and let these veterans know today that the reinforcements are on their way.

I thank you very much.

DR. ZIEMER: Thank you very much, Patty.

MS. AMENO: Are there any questions?

DR. ZIEMER: I would like to ask for one word of clarification regarding the positions that were named. Again, are those covered, LaVon, as you understand it, in the NIOSH -- this -- they appear to be administrative pos-- administrative, clerical and security guard workers.

MR. RUTHERFORD: Yes, those -- all of those people are covered.

DR. ZIEMER: Would be covered?

MR. RUTHERFORD: Yes.

DR. ZIEMER: Thank you. I just wanted to make sure we were in the same boat there. Thank

you.

Other questions? Yeah, Brad Clawson.

MR. CLAWSON: I've got a question for LaVon. Who did the -- was there only one laundry plant, or was there only one laundry?

MR. RUTHERFORD: There was one laundry op-- one laundry facility that laundered for both Park, Apollo and actually they laundered for other nuclear facilities, actually brought in laundry from other nuclear facilities and laundered it there.

MR. CLAWSON: So -- so they -- they show their laundry back and forth and everything on that. Who did Apollo's and Parks' -- well, who did the bioassay? Who -- was that a --

MR. RUTHERFORD: They -- they had -- bioassay was done by a number of different contractors, but from 1976 to 1993 it was done by CEP. There was actually three or four other contractors that -- that did bioassay analysis in the earlier years.

MR. CLAWSON: Okay. When did Apollo -- well, when did NUMEC shut down?

MR. RUTHERFORD: They -- operations that supported the AEC were in '83, were com--

that's when they -- those operations were complete. However, they continued uranium production in '84 and other operations until I think the facility was closed and completely D&D'd in '93.

MS. AMENO: December of '93.

MR. RUTHERFORD: Yeah.

DR. ZIEMER: On the issue of outside laundry, do we have any idea of the possible introduction of other nuclides that --

MR. RUTHERFORD: Yeah, in fact --

DR. ZIEMER: -- would have been used in other facilities but not part of the Apollo --

MR. RUTHERFORD: Yeah, in fact at one point --

DR. ZIEMER: -- inventory?

MR. RUTHERFORD: We did leave out a -- the -- one of the reports that is in the sheet that Ms. Ameno has provided is actually a report I provided to the Board on the X drive, plutonium at the laundry. Our report was silent on the fact that there was mixed fission products clearly at the laundry, and I think if you -- and -- and that was not monitored for, and that was probably from washing the control rod drive mechanisms at the laundry, as well.

DR. ZIEMER: Thank you. Other comments?

(No responses)

Okay, thank you. Continue. Do you have -- you have an --

MS. AMENO: (Off microphone) (Unintelligible) --

DR. ZIEMER: -- any additional --

MS. AMENO: -- (unintelligible) the Board has nothing further from me or for me or of me or (unintelligible) I could do for you.

DR. WADE: Thank you very much.

DR. ZIEMER: Thank you very much.

MS. AMENO: Thank you.

DR. ZIEMER: And did Richard have some remarks, as well, or not?

MR. PARLER: Well, not much, after all of that. I do --

DR. ZIEMER: Richard, we'll need to have you miked for the recorder.

MR. PARLER: As long as everybody can look at these pictures and realize how small and tiny this place was. It's not spread out. As a matter of fact, the back of that place is a steel mill which wasn't even used. The -- the NUMEC plant was right in the front there, that

little -- little small area. And the office that was across the way there, 35 feet, because of those uranium labs in the basement there, that administrative building, the -- the uranium labs were not in the administration building, office building. The office workers were in the uranium lab building.

And with that, I want to thank the distinguished Board, of course, and the distinguished members of the audience. And this has been a long, long uphill fight for everybody and I want to comment on the professional actions and integrity of everybody with NIOSH who have gotten us to this part through their long dedication and service.

DR. ZIEMER: Thank you very much. Phil, do you have a question or comment? Phil Schofield.

MR. SCHOFIELD: Yes, I do. I've got a question. You talk about them bringing the laundry from other facilities. Were any of these facilities there covered under an AWE so that maybe some of this plutonium mixed isotopes that were coming in were actually residual contamination from sites that would be covered?

MR. RUTHERFORD: Well, I'm not sure about that, but the significant portion of the plutonium was definitely from the Parks facility. The Parks facility was doing plutonium production, and there's actually a few reports which I've made available to the Board on the X drive which talks about opening of highly contaminated anti-contamination clothing with heavy plutonium contamination from the Parks facility at the laundry. And then burning them in barrels, so...

DR. ZIEMER: Thank you. Brad Clawson, an additional comment?

MR. CLAWSON: I've got a question because on the bottom of your statement it's --

DR. ZIEMER: Use the mike, Brad.

MR. CLAWSON: It says is uranium dose reconstruction feasible for 1960 on due to available of bioassay data. But there's a question because there's a guilty plea that was issued.

MR. RUTHERFORD: Yeah, I --

MR. CLAWSON: How -- how can we trust that?

MR. RUTHERFORD: We -- we won't. We will not use the CEP data. We were -- we will use --

the CEP data from 1976 to 1983 we will not use. All other bioassay data that we've -- we've -- we -- we will use all other bioassay data. We have -- we have breathing zone data for uranium, we have the whole body counts for uranium, we have the bioassay data pre-'76 for uranium. We also have fecal data pre-'76 for uranium, so we will use that information. The only information we won't use is the CEP data.

MR. CLAWSON: Okay. Thank you.

DR. ZIEMER: Thank you very much. I think it would be appropriate if we took -- took our break now, and then following the break, Board, we can continue discussions on this petition and any motions that you may wish to make. We'll have a break for approximately 30 minutes.

(Whereupon, a recess was taken from 3:00 p.m. to 3:30 p.m.)

DR. ZIEMER: Okay, I'll call the meeting back to order. Thank you very much.

Board members, we'll continue our discussion of the SEC petition for the NUMEC Plant in Apollo, Pennsylvania. Are there any questions or comments before we ask for a specific action?

(No responses)

Apparently not. If not, it would be appropriate for us to have a motion. I'm going to call for a general motion to indicate the Board's intent on this particular petition. If the motion carries, we will have ready for you Friday the exact wording of the action as it will go to the Secretary of Health and Human Services. That wording includes not only what we recommend, but would include the usual instructions to the Chair on how soon that needs to go out and related information on why we are making the recommendation.

So I will ask if anyone wishes to make a motion. The motion -- an appropriate motion would be for us to recommend the class as recommended by NIOSH. Anyone wish to make a motion?

MR. GIBSON: (Off microphone) (Unintelligible)

DR. ZIEMER: Mike is making the motion. Let me repeat Mike's motion. Mike's motion is that all AWE employees who were monitored, or should have been monitored, for exposure to ionizing radiation while working at the NUMEC Plant in Apollo, Pennsylvania for a number of work days

aggregating at least 250 days from January 1st, 1957 through December 31st, 1983, or in combination with work days within the parameters established for one or more other classes of employees in the SEC.

That was your motion, Mike? He made it much more efficiently than I did, but that was his motion. Is there a second?

MR. CLAWSON: I second it.

DR. ZIEMER: And a second. Is there any discussion on this motion? I -- let me add that, should the motion carry, the Chair will then entertain a separate motion that would recommend that the iss-- the 250-day issue that was raised by the petitioners be referred to the Melius workgroup that is addressing 250-day issues for all petitions, so -- was that the question you were going to ask?

UNIDENTIFIED: (Off microphone) That was my question.

DR. ZIEMER: Yes. Okay, are you ready to vote? Comment, Mark?

MR. GRIFFON: Only one more. We -- we might have -- I just want to give Jeff a chance to -- maybe just this interpretation of the class

question that I had earlier. I think we've been around the block on it, but if I could just get DOL to maybe give a sense to the Board of how they're going to interpret this class, given what they know about the facility (unintelligible) --

DR. ZIEMER: Present wording uses "who were monitored, or should have been monitored" -- it's the Board's understanding that this includes all individuals on the Apollo site and I think --

MR. KOTSCH: I think --

DR. ZIEMER: -- Jeff, you've agreed --

MR. KOTSCH: Yeah, we agree that --

DR. ZIEMER: -- that that's what it means in this case.

MR. KOTSCH: I would agree with that interpretation.

DR. ZIEMER: Yeah.

MR. GRIFFON: Okay.

DR. ZIEMER: Thank you. Then let me call for a vote, and let me point out also that we're obligated under our rules to obtain the votes of those who are not present. That would be Dr. Lockey, and I -- right now we're assuming

that Dr. Melius is conflicted on this one. If it turns out he isn't, we would obtain his vote as well, if needed.

All those who favor the motion, say aye -- let's do it by rais-- show of hands, raise your right hand.

(Affirmative responses)

Okay, any opposed?

(No responses)

Any abstentions?

(No responses)

It appears to the Chair that the motion carries --

DR. WADE: By a vote of ten-zero.

DR. ZIEMER: -- ten-zero. We will nonetheless obtain Dr. Lockey's vote for the record, and if necessary, Dr. Melius's vote. So the motion carries and there will be a formal recommendation to the Secretary that the Apollo petition be approved for -- as part of the class in the Special Exposure Cohort.

Now I would entertain a motion to request that the 250-day issue raised by the Apollo petitioners be referred to the Melius workgroup for consideration in their deliberations.

DR. WADE: Just for the record, that workgroup is called the SEC issues group, paren, including 250-day issue and preliminary review of 83.14 SEC petition, chaired by Melius, members Griffon, Roessler, Ziemer.

DR. ZIEMER: Right. That's our -- that's the workgroup with the longest name.

MR. GRIFFON: I'll make that motion.

DR. ZIEMER: Okay.

MR. CLAWSON: I'll second.

DR. ZIEMER: It's moved and seconded. Any discussion on this motion?

(No responses)

All in favor of the motion, aye?

(Affirmative responses)

Any opposed, no?

(No responses)

The motion carries. Thank you very much.

DR. WADE: By a vote of ten-zero. We will not secure Lockey's on this 'cause this is not a recommendation --

DR. ZIEMER: That's correct. Thank you very much. And for the --

DR. WADE: We have a -- maybe one --

DR. ZIEMER: -- Apollo folks, we thank you for

your participation today. If you have any additional comments, we'd be pleased to hear them.

MS. AMENO: I would like to, on behalf of the NU-- NUMEC workers, the ones that are gone, the ones that are still here, for the families, for the people of our community who interact with them, for everybody, I want to thank each and every member of this Board today. Thank you so much. Thank you.

DR. WADE: A comment. I think if -- if thanks from those workers are due to anyone, they're due to you and the fine work that you people have done representing them. You should be very, very proud of what you have accomplished.

DR. ZIEMER: Okay, thank you very much. Let's then proceed. We're a little behind schedule but we'll be able to make up some time. I'm going to take the presentations not completely in the order that they're listed in the agenda because there are some individuals that will need to leave us earlier and one or two that we might postpone till tomorrow. I think we're going to postpone Dr. Neton's presentation, probably, unless these others really go faster

than I expected.

NIOSH PROGRAM UPDATE

But we'll begin with Dr. -- with Larry Elliott's update on the NIOSH program. I'd like to follow that by having LaVon Rutherford give us an SEC petition update. Then we'll hear from Pat Worthington, the DOE program update, and then Jeff Kotsch will give us the Department of Labor update. So Larry, you're first.

MR. ELLIOTT: Thank you, Dr. Ziemer. Appreciate the opportunity again to be with the Board and present to the Board the program status update and (unintelligible) talked about in previous presentations.

DR. ZIEMER: Hang on.

DR. WADE: He's not picking you up.

(Pause)

MR. ELLIOTT: How about now? Not yet. Not yet? Not yet. One, two, three? Sometime soon? Now we're coming up, maybe.

UNIDENTIFIED: (Off microphone) (Unintelligible)

MR. ELLIOTT: I'm on now?

UNIDENTIFIED: No.

MR. ELLIOTT: No?
UNIDENTIFIED: (Off microphone)
(Unintelligible)
MR. ELLIOTT: How about that?
DR. WADE: Upside-down, Larry.
MR. ELLIOTT: Upside-down?
(Pause)
Is that -- am I working now?
DR. ZIEMER: Good.
MR. ELLIOTT: Okay, we're working now.
The overall initial claim information that we present in the program updates are in this first slide. As of September 27th of this year there've been 25,325 cases which have been referred to NIOSH by the Department of Labor for dose reconstruction. Seventy-six percent of those have been returned to DOL, and if you break that number -- 19,265 -- down, you will see that there are 17,153 that have been returned to DOL with a dose reconstruction report. Another 642 have been returned to DOL as being pulled by the Department of Labor, for a variety of reasons, and so they're out of the dose reconstruction process.
There have been 1,470 claims that have been

returned to DOL with a determination of eligibility within a Special Exposure Cohort class that has been added. That means that 23 percent of the cases remain at NIOSH for dose reconstruction, for a total of 5,797 as of September 27th of this year.

One percent, or 263 cases, are currently administratively closed, and I'll remind the Board and the audience of what this means. That means that we have completed our work with the dose reconstruction, provided to the claimant, and the claimant has chosen not to provide us with an OCAS-1 form indicating that they have no further information to -- to offer. If they so choose, they want us to reopen the claim, all they have to do is let us know or provide additional information, provide the OCAS-1, and we'll reactive the claim.

This pie chart shows a different graphic (unintelligible) of those 25,325 cases. In this you'll see the light blue or the Carolina blue, 67.7 percent showing as being completed. There's a different color there for the other categories of claims, and I'll let you sort through those as you wish.

Of the 17,153 dose reconstructions that we have returned to the Department of Labor for final adjudication, we note that 31 percent of them will result in a probability of causation greater than 50 percent, or around 5,242 claims. That means 11,911 claims, or 69 percent, that have had -- that will be found in the adjudication process to be non-compensable or have probability of causation of less than 50 percent.

This bar graph that we show in this slide shows in decade or decile groupings of zero to ten, 11 to 20, 21 to 30 and 31 to 40, 41 to 49 percent and greater than 50 percent, the distribution of claims as they break out in the probability of causation categories, as you see.

Of the 5,797 claims remaining at NIOSH for dose reconstruction, I'll break those down for you in this slide, 1,838 cases are currently assigned to a health physicist for dose reconstruction; 956 initial draft dose reconstruction reports are (unintelligible) with the claimants, they're with the claimants and we're awaiting the return of the OCAS-1

form; and that leaves 3,003 cases that are not assigned to a dose reconstructor at this point in time -- as of September 27th.

As we work very hard and continue our efforts on -- on monitoring the oldest cases, you'll see that 53 percent of these active cases, or 3,056, are older than one year.

We continue to maintain our attention on the first 5,000 claims, trying to complete these oldest claims that have been referred to NIOSH for dose reconstruction. And in this slide you'll see that we have returned to DOL, of the first 5,000, 2,996 claims. We've administratively closed 58 claims in this first 5,000. And there've been 246 of those first 5,000 claims pulled by Department of Labor without a dose reconstruction report. We have 183 that have been removed from the first 5,000 because they have some eligibility in an SEC class. And we have eight dose reconstructions with a claimant. The lines that you see here in red are those claims that we are working on in the first 5,000. The 445 claims are actually not initial dose reconstructions. They've already given up their initial dose

reconstruction report and something changed about that particular claim within those 445 and we were asked to rework them. The 64 I think here is a critical number. These are claims that have not yet had an initial dose reconstruction, and of those 64, 20 are NUMEC claims, so that would leave 44 possible claims for us to reconstruct dose on if all 20 of those NUMEC claims find their way into the SEC class for NUMEC.

This slide presents the -- in three lines on this graph, the number -- the trend in receipt of cases from Department of Labor shown in the blue line. And you can see -- I'll point out that we've seen an increase of late in submittals to us for dose reconstructions from the Department of Labor. We've also seen in our drafts that go out, in the green line, and our final reports that go to DOL in the red line, a downward trend. And you'll note that this started back in really about the second quarter, some activity in the first quarter of this fiscal -- last fiscal year. But this is a result of our tailoring back in our prioritization of work given resource

constraints under a series of continuing resolutions during that fiscal year, in FY '07, as well as some other funding issues that we have noted for you in past presentations. This bar graph gives you a sense of our progress on working through the cases in 1,000 increments all the way through to the 25--25,000-whatever number we have represented here. The blue line part of the graph indicates those that have been completed. The red line indicates those that have been pulled for us for reasons DOL has, and the -- this greenish -- I don't know what color that really is -- pardon me?

UNIDENTIFIED: Olive.

MR. ELLIOTT: Olive is a very good descriptor of that color. That represents those cases that are active and we're working on. The sharper green, grass green, would represent those cases that are pended currently, and this may be because of technical issues or because of -- we're working through some issues with the deliberation process on moving these claims forward and we're waiting to see final action. So there's a variety of reasons as to why these

might be pended. The yellow would be SEC claims within those 1,000 increments that are being adjudicated by the Department of Labor, and then this purple bar are administratively closed in those 1,000 increments bars of the graph.

This graphic -- bar graph shows you how many reworks we have received, and I'll note for you the trend that's shown out here on this end. These are primarily due to the program evaluation reviews of super S or highly insoluble plutonium material that are being done right now.

We have -- as you know, we make requests to the Department of Energy for exposure information relative to the claims, and I always report to you how well we're doing in that regard. We follow up every 30 days on our requests and we document our progress and take special note of those that go beyond 60 days. Right now we have 815 outstanding requests, with 148 of those exceeding a 60-day mark. And if I were to anticipate Dr. Melius's question, since he's not here, the sites for the -- the operational -- the DOE operations offices that we are

looking at in those 148 claims are represented by the Oak Ridge operations office with 93 claims. That cuts across the sites for K-25, Y-12, X-10, Paducah and the Paducah Gaseous -- or the Portsmouth Gaseous Diffusion Plant. The next highest number in that 148 would be Albuquerque operations office with 28 claims greater than 60 days, and those represent claims from Lawrence Livermore National Lab and General Atomics cases. And then the next highest number would be 21 claims resident -- requests for information resident with the Chicago operations office for ANL East and ANL West and Lawrence Berkeley National Lab.

We have -- bring special attention over the course of the last year and a half on the atomic weapons employer facilities. As you recall, there were more than 1,400 claims that we felt needed special attention. They represented around 200 sites. And so we asked Battelle to work up a set of documents for us on how to handle those particular atomic weapons employer sites. This presents to you that the Technical Basis Document-6000 for atomic weapons employers that work with uranium

and thorium metals and the status of those particular appendices that are associated with that Technical Basis Document and where they stand. Right now we have 15 of those appendices that have been completed and are in use. There are ten other appendices that are currently in review as of September 18th, last month. And there are 14 appendices that are currently in development, some stage of development, that are associated with TBD-6000. The next Technical Basis Document that is of interest and note for atomic weapons employers that speaks specifically to those that refined uranium and thorium, we have three completed appendices and are using those. There are no appendices in review and we have four that are currently in development.

We'll move on to the Program Evaluation Reports. I know this is of special interest to the working group on procedures. They had a little discussion about this yesterday and I hope that the level of detail I'm about to present will be found satisfactory with that working group, as well as with the full Board. Nineteen Program Evaluation Reviews have been

issued at this point. You'll find them on our web site. There are also a couple of what we call Program Evaluation Plans included in that set. Those currently affect 13,008 claims. However, that number -- 13,008 -- does not reflect individual claims, as a claim may be counted more than once because it's affected by different types of Program Evaluation Reviews. So I'd just caution you on thinking about that number and its magnitude. It is a lot of work, but it -- as we work through these, we're -- we're taking a claim and rubbing it off against every possible modification and change that has been found and -- and recommended in a Program Evaluation Review.

To date we have seen a -- of the ones that we have reviewed which -- in our efforts to look at whether a change constitutes a -- a change in the outcome of the claim decision, we have found 157 claims that have gone from non-compensable to compensable. If I break that down a little farther for you, 152 of those were based upon lymphoma, so if you write that down -- it's not on my slide, but I thought I might give you just a little more detail

(unintelligible) background. Three of those were from Bethlehem Steel -- which changed from non-compensable to compensable -- and two are reflective of the IREP lung model change that we made. So that gives you 157 switched from non-compensable to compensable.

9,061 claims have been reviewed and no change in compensability decision has been found. That's a remarkable number for you to take away from this. A lot of people out there are being, I think, anticipating a big change in compensability decision and this number indicates to us, to me, that there's not a lot of change in compensability decision. We have 3,790 claims still under evaluation across all of these PERs that I've -- that you'll find on our web site. If you need more detail or more information about PERs, I'd be happy to see if I can answer any questions you might have at this meeting. Or if you want more input than this for the future meetings, let me know.

(Unintelligible) in our contract for technical support on dose reconstructions and processing SEC petition evaluations, the request for proposals was issued on May 4th, 2007 and those

proposals were due to be submitted by June 15th, 2007. The proposals met that date -- submission date are now being processed in a procurement review. To avoid interruption of service, we have extended the ORAU contract until October 5th, and it will be further extended until the award of a new contact, so just to give you assurance that we're trying to maintain consistency in service and support. LaVon's going to present a little bit more in (unintelligible) about the SEC class additions, but I wanted to just include in my comments that, from the very broad picture scale, 22 classes have been added since May of 2005. 59 percent of those -- or 13 -- have been accomplished through the 83.13 process which is a petitioner submitting a qualified petition and this Board evaluating our report on that and moving forward with a recommendation to the Secretary. 31 percent, or nine of those 22 classes, have been processed through the 83.14 rule process and I think that's very noteworthy. These represent classes of workers across 17 sites, these 22 classes, and also represents 1,470 cases as of to date.

Something I haven't included in past presentations, but given that we've just completed the seventh fiscal year of operation in this program for NIOSH -- and actually this is six and a half fiscal years, because our money didn't come to us in the FY '01 until pretty much into -- late into the second quarter of that fiscal year. But we have accounted for $280 million under administrative funds to conduct our work in this program across those six and a half fiscal years. If I were to break that down for you into finer detail, I would say to you that $220 million have been expended on all contractors; $180 million of that went to ORAU. $14 million went to the Board, and that leaves $46 million for the operation of -- and conduct of federal staff in my office over those years.

But more telling I think is that $869 million has been paid out in compensation by the Department of Labor based upon NIOSH work. That reflect -- that's reflected in 6,762 payees in 4,810 cases at $719 million; and $150 million for added SEC classes, which represents 2,138 payees in 1,014 cases.

And with that, I will see if I can answer any questions that you might bring forward.

DR. ZIEMER: Thank you very much, Larry. We'll begin with Wanda, and then with Phil -- oh, no, it's Gen Roessler. Hello, Gen.

DR. ROESSLER: (Off microphone) (Unintelligible)

DR. ZIEMER: Yeah, you all look alike, right.

DR. ROESSLER: Larry, on the ORAU money, did they get additional funds to continue till October or are they operating on the funds they had been granted already?

MR. ELLIOTT: We extended (unintelligible) contract extension that also provided additional monies through October 5th. Next contract extension will also extend not only the contract period, but will provide additional funding (unintelligible) the work. The $188 million that I spoke of, that was through the end of FY '07, which was last week.

DR. ZIEMER: Is this done on a proportional basis for the extended time --

MR. ELLIOTT: (Unintelligible) --

DR. ZIEMER: -- fraction of a year?

MR. ELLIOTT: -- continuing resolution, and so

the continuing resolution requirements that we have to follow say that we operate on a similar budget level as last year -- or the year before when we had an actual appropriate set of funds.

DR. ZIEMER: Phil.

MR. SCHOFIELD: I've just got one quick question. During the early stages of the program, at the Espanola area office actually encouraged people to file as claimants in order to get their records. And now some of these people -- who at the time were not eligible, they did not have any health problems -- are now starting to crop up with health problems. They want to know how difficult it is for them to get their cases reopened.

MR. ELLIOTT: I'm sorry, you lost me there. What --

MR. SCHOFIELD: (Off microphone) Okay, what -- what was happening --

DR. ZIEMER: Use the mike.

MR. SCHOFIELD: The local office in Espanola was actually encouraging people in the early days of the program to file a claim under the Act so they could get their medical records, their exposure records.

MR. ELLIOTT: This is the Resource Center.
MR. SCHOFIELD: The Resource Center, yes.
MR. ELLIOTT: Okay.
MR. SCHOFIELD: A lot of these people who filed did not have any health problems of any type. Now some of them are showing up with cancers and some of these other health problems, and they're wanting to know how difficult will it be for them to go back and get their cases reopened.
MR. ELLIOTT: Well, that's a question that is best posed to the Department of Labor. I can't answer that. It should not be difficult. All they have to do is -- and once they have a physician's report indicating that they have acquired a cancer that they didn't have before, or if it's a Title E, Subpart E claim, based upon toxic chemical exposure and they have some health effect that a physician has acknowledged, then they should approach the Department of Labor to reopen that claim. But I can't answer how long it would take or what efforts would be required upon a claimant to get that done. I'd just encourage them to go back to the Department of Labor and ask that it

be reopened. Did that help?

MR. SCHOFIELD: Yes, it did.

MR. ELLIOTT: Okay.

DR. ZIEMER: Wanda, additional?

MS. MUNN: Yes. Larry, thank you for the good information on the PERs, from -- excuse me, I always sound terrible. It's improving things. Right? Under the TBD-6000 information that you gave us, are the 19 appendices that you mentioned in your slide the complete set of what we anticipate for appendices to that particular TBD at this time?

MR. ELLIOTT: This is TBD-6000?

MS. MUNN: 6000, right. You said we had 15 that were done, ten that were in review and 14 that were in development. And I was wondering whether there were more behind the curtain (unintelligible) --

MR. ELLIOTT: Right now that is a comprehensive list, as we understand it. See, TBD-6000 covers a lot of sites --

MS. MUNN: I know.

MR. ELLIOTT: -- in and of itself.

MS. MUNN: I know.

MR. ELLIOTT: The appendices are designed to

speak to special exposure circumstances, like the appendices for General Steel Industries speaks to the Betatron exposures, which is not covered in TBD 6000.

MS. MUNN: I understand. Yeah, I've read some of them, but certainly not all of them -- just wanted to make sure --

MR. ELLIOTT: Right.

MS. MUNN: -- that there were not more --

MR. ELLIOTT: Remember I said there were around -- around 200 sites --

MS. MUNN: Yes.

MR. ELLIOTT: -- that were covered by Technical Basis Documents.

MS. MUNN: Yeah.

MR. ELLIOTT: You only see I think -- the numbers I've shown here are not 200.

MS. MUNN: Thanks.

DR. ZIEMER: Dr. Poston?

DR. POSTON: Larry, I just want to clarify. Did you say $14 million to the Board?

MR. ELLIOTT: Yes, sir.

MS. MUNN: Over six years.

DR. POSTON: Does that include SC&A's contract?

MR. ELLIOTT: Yes, it does.

DR. ZIEMER: Yes.
MR. ELLIOTT: That's all the Board.
DR. WADE: You wondered where it was going, didn't you?
DR. POSTON: Yeah, I wondered where it was going.
DR. ZIEMER: Most of that's for the Chairman.
MR. ELLIOTT: That's all (unintelligible).
DR. ZIEMER: Yeah, actually most of that is contractor cost. There's minimal cost for Board members, who hitchhike to the meetings, but --
MR. ELLIOTT: What it does not include -- let me speak to that. What it does not include are our costs associated with our reacting to the Board. Okay? When -- when the Board -- a working group takes up an issue and we bring our staff or our technical support contractor's staff to bear on that issue, those costs are not included in that $14 million. They're included in the costs I reported out for the contractor or for OCAS.
DR. WADE: To give you a sense of proportion, a typical year -- $4.5 allocated to the Board, $3.5 million of that goes to the SC&A contract,

a million for everything else.

MR. ELLIOTT: Every year I put forward a budget request that includes $4.5 million for the Board, unless otherwise instructed.

DR. ZIEMER: Okay, thank you. Mark, do you have a comment?

MR. GRIFFON: Yeah, just a question on the -- the PER slide, and -- and I'm trying to understand that would -- compared to what we got yesterday with the procedures workgroup, and I -- I don't know if these are comparable in any way or if there's any way to cross-walk them, but that -- well, I guess that's the question. Is there any way to compare the number or 3790 look like they're remaining claims in your overhead, and then we have 24 PERs with various numbers of cases.

DR. ZIEMER: There's some duplication.

MR. GRIFFON: Yeah.

MR. ELLIOTT: There's some duplication.

MR. GRIFFON: Yeah, I know, I --

MR. ELLIOTT: I could have included a couple more slides, but I didn't do that 'cause I wasn't sure what level of granularity or detail --

MR. GRIFFON: But this --
MR. ELLIOTT: -- the Board was interested, but I have it with me. I have some information if you'd like a little bit more information about those that are in -- are being evaluated (unintelligible) --
MR. GRIFFON: May-- maybe a little -- I just wanted to understand does this 3790 account for all those that were listed on that slide that we looked at yesterday in the procedures workgroup, all these 24 PERs.
DR. WADE: Perhaps, Larry, you could -- off-line we could look at that and then you could make those numbers available when we have the workgroup report.
MR. GRIFFON: Okay.
MR. ELLIOTT: I can do that.
MR. GRIFFON: That's fair.
MR. ELLIOTT: I can do that. I can tell you right now there's not all 24 involved, no.
MR. GRIFFON: Okay.
MR. ELLIOTT: Not all 19 PERs are involved here. It looks to me like there's maybe nine.
MR. GRIFFON: Okay.
DR. ZIEMER: Additional questions or comments?

MR. GRIFFON: So that number of claims under review could go up when -- when more of these PERs are --

MR. ELLIOTT: Yes.

MR. GRIFFON: -- included? Okay.

MR. ELLIOTT: Absolutely.

MR. GRIFFON: That's what I wanted to --

MR. ELLIOTT: That's just a snapshot in time.

SEC PETITION UPDATE

DR. ZIEMER: Okay, thank you. Thank you, Larry. Now let's move on to another part of the NIOSH report and that's an update on the SEC petitions, give us a look at what's coming down the line and so on.

DR. WADE: If I could ask you to experiment, if you could hold that microphone close to you, you're supposed to wear it on the lapel and then push the button with your other hand, if you can --

DR. ZIEMER: (Unintelligible) stand.

DR. WADE: Well, we can use the standing mike. This isn't work-- the lapel mike is not working well.

UNIDENTIFIED: (Off microphone) (Unintelligible) high on the shirt

(unintelligible).

DR. WADE: Well, let's experiment so we're -- 'cause it's not working well at all.

(Pause)

Try.

MR. RUTHERFORD: How does that work?

DR. WADE: Count to 157.

MR. RUTHERFORD: 151, 152, 153 --

DR. WADE: That seems to be working pretty well.

MR. RUTHERFORD: I'm going to give the status of upcoming SEC petitions. We -- we provide this update at the Board meetings so the Board can prepare for upcoming working group sessions and future Board meetings.

As of September 17th we had 97 petitions. We now have 99. We actually have two 83.14s that came in. We have nine petitions that are in the qualification process, 42 petitions that have qualified. We're in the evaluation process for five of those, and we have completed evaluations on 37. We have 41 petitions that did not qualify.

I want to go over some petitions that are currently with the -- with the Board for

recommendation, and kind of give you an overview of -- of the -- kind of chronology of events.

Chapman Valve evaluation report was approved and sent to the Board and the petitioners on August 31st, 2006. We presented our evaluation at -- at the September 2006 Advisory Board meeting. The Advisory Board established a workgroup to review the evaluation at its September meeting, and the workgroup presented its findings at the May 2007 Advisory Board meeting.

A decision was made at that time to postpone a recommendation till the July meeting to allow the petitioners to review SC&A's report on the evaluation.

The Advisory Board voted on a six-to-six to not add the class in the July 2007 meeting. Based on this vote, the Advisory Board determined it would like to get a response from the Department of Labor and DOE concerning potential covered work at the Dean Street facility.

DOL provided response to the Advisory Board's questions, and the current status of th-- and I

think we're still waiting on DOE's response --
DR. WADE: We are not. We now have DOE's response and --
MR. RUTHERFORD: All right.
DR. WADE: -- it's been shared with the Board.
MR. RUTHERFORD: This was as of September 17th, so I'm okay.
The status is the Chapman Valve SEC is with the Advisory Board for recommendation.
Blockson Chemical, the evaluation report was initially approved and sent to the Advisory Board and the petitioners on September 5th, 2006. NIOSH presented our evaluation report at the December 2006 Advisory Board meeting. We subsequently pulled that -- that evaluation report after it was determined that we did not address all covered exposures. The Advisory Board established a working group to review the evaluation report at the -- at its December 2006 meeting.
NIOSH issued a revised evaluation report in July 2007 and presented that evaluation report at the July Board meeting. The working group met in Cincinnati on August 28th, and a public meeting was conducted on September 12th with

claimant audience to explain changes made to the dose reconstruction technical approach. And the status is the petition is still with the working group.

Feed Materials Production Center, the evaluation report was approved and sent to the Advisory Board and petitioners on November the 3rd, 2006. NIOSH presented the evaluation report at the February 2007 Advisory Board meeting, and the Advisory Board established a working group to review the evaluation report at that meeting.

In May 2007 SC&A provided a draft review of the evaluation report to the working group, petitioners and Board. The working group met in Cincinnati on August 8th.

And the status is the working group review of the FMPC, Feed Materials Production Center, report is ongoing.

Bethlehem Steel, the evaluation report was approved and sent the Advisory Board and petitioners on February 27th, 2007. NIOSH presented their evaluation report at the May 2007 Advisory Board meeting. At the time, the Advisory Board determined that it needed

further information before making a recommendation on the SEC petition. The Advisory Board tabled the discussion on Bethlehem Steel evaluation report until the working group that is looking at the use of surrogate data comes back with a determination concerning the use of surrogate data at Bethlehem Steel.

Status of the petition is with the Advisory Board for recommendation.

Sandia National Lab Livermore, the evaluation report was approved and sent the Advisory Board and petitioners on March 29th, 2007. On April 25th, just before the Board meeting, we received new information from the petitioner and NIOSH presented our evaluation report at the May 2007 Advisory Board meeting, and we discussed the new information that was provided by the petitioner. The Advisory Board asked NIOSH to provide an update that would address the new information.

NIOSH has issued the addendum to their evaluation report and we plan to present that addendum at this -- this Board meeting.

Y-12 statisticians, the evaluation was approved

and sent to the Advisory Board and petitioners on June 29th, 2007 and we are presenting that evaluation report this meeting.

NUMEC, which we discussed earlier, the evaluation report was approved and sent the Advisory Board and petitioners on September 14th, and I think we've taken action on that one.

Hanford Part 2, which addresses all employees '47 to '90, the evaluation report was approved and sent to the Advisory Board and the petitioners on September 11th, and NIOSH is presenting that evaluation at this meeting.

NTS, NIOSH completed our evaluation in September, this month, and NIOSH plans to present that evaluation report at the January 2008 meeting.

We have a few petitions that are in the qual-- or in the evaluation process right now. We have an 83.14 for Lawrence Livermore National Lab. We expect to have that evaluation report completed this month.

We're also working on an 83.13 from a petitioner for Texas City Chemical, and we anticipate having that complete at the end of

this month.
We have a 83.13 from the Mound plant, and that is on schedule to be completed in November.
In addition, the resource constraints that we were -- that limited our activities on the 83.14 process have been resolved and we have a -- we are currently working a number of 83.14s and I -- you can expect that process to -- to increase considerably over the next six months.
That's it.
DR. ZIEMER: Thank you, LaVon, for a good summary of what's coming down the pike. Let me see if anyone has questions for you. Josie?
MS. BEACH: I just had a question on Parks.
MR. RUTHERFORD: Yes.
MS. BEACH: You mentioned that was going to be an SE-- or an 83.14.
MR. RUTHERFORD: Yeah, that was -- that one didn't make the -- didn't make (unintelligible) yet because we didn't actually have the petitioner as of September 17th when I -- see, they put tight restrictions on us on preparing these presentations now, so I couldn't up--
DR. ZIEMER: But we know that one is also on the horizon, as well. Thank you.

Other comments or questions?

(No responses)

Thank you very much, LaVon, for that update.

DOE PROGRAM UPDATE

Let's proceed -- is Dr. Worthington here or -- there she is. Okay.

Dr. Worthington, welcome. We're pleased to have you here. You'll give us an update on what's happening with the DOE -- at least some things that are happening with the DOE.

DR. WADE: Painful though it may be, Bomber, you have to give up the mike.

DR. WORTHINGTON: While he's getting the next set of -- of slides, can you hear me okay? Louder? This is good?

(Pause)

Good afternoon, Dr. Ziemer, Dr. Wade, members of the Board, representatives of Department of Labor and NIOSH and interested workers and citizens. I am very pleased and honored to appear before the Board today. This is my first opportunity to do that and I'm looking forward to it.

I am the Director of the Office of Health and Safety within the Department of Energy. And

one of the primary responsibilities, one of my highest priorities, is to ensure that we're able to provide thorough and timely records to support this activity. The program continues to be a very high priority within the office of HSS, but also across the DOE complex, so I wanted to share with you today the status of our program and to make sure that people are aware that the health and safety of our workers, both past and current, is very important to us and it helps define who we are within the Department of Energy.

Again, I want to talk a little bit about our role. Our role in the Department of Energy is a role of being a facilitator, supporting and assistance -- and assisting the other organizations to make sure that we can research, retrieve and provide the appropriate documentations for these activities.

A little bit more about the role of Department of Energy in terms of what we're doing. We have responsibility in a number of areas. One is individual claims. I don't know if you can actually see that from where you are so I'll mention what the numbers are. We have been

very aggressive in that area. And for example, employment verifications, we typically -- we've done eight -- over 8,000 this year. In terms of dose documentation for NIOSH, you'll see that we've done over 4,000 in that area. In terms of document acquisition requests, we've been aggressive there; again, over 8,000. So again, a number of activities related to individual claims.

We have some large-scale activities, and I think you've heard a little bit about that already. We try to provide support to NIOSH and to DOL and to the Board for various activities. We try to serve, again, as a facilitator, supporting and making sure that the sites are aware of the planned visits and that they're able to retrieve the documents for both site exposure matrix projects, things to support the Advisory Board in their research, and also to support the -- the SECs. One of the things that we do from our office, from HSS, we are constantly trying to provide information to the sites. We have all of the various activities from NIOSH and Department of Labor and the Board on the calendars that are

visible to Glenn Podonsky, and we're making sure that in his interaction with senior leadership in the Department that we make sure they're familiar and they're aware of these upcoming events and they're prepared to support the document retrieval activities.

We also have responsibility for research and maintain the covered facilities database.

I want to talk a little bit about slides in terms of the kinds of things that we're doing here. This particular slide relates to our activities of all the records requests that we've completed for both DOL and NIOSH. And you can see here that there continues to be an increase in terms of the requests coming to the Department of Energy for the various records. There've been some fluctuations in the requests, but certainly it's clearly an increase in the activities.

I think the trick is to point towards the -- oops, do I need to go back?

(Pause)

I want to talk a little bit about the record research support activities that we do in support of NIOSH and its contractors. As you

can see, we have nearly 15 areas or sites that we're supporting in providing documentation for. In addition to the ones that you see here, from time to time we have to do additional researches at our National Archives and Federal Records Centers, and we're doing that, making sure that we're looking at all the places and finding the records 'cause in some cases the records are not -- no longer at the site, or there are incomplete activities and we look in other areas and other places to try to find these records.

I'm getting an echo here. Are you hearing me okay from where you are? Good?

A little bit about our support to you, to the Board. There are some things that we're doing, we're trying to facilitate getting the records for your activities, as well.

A little bit about where we are. I think you've heard a little bit from Larry in terms of activities and interface with Department of Energy in terms of getting records. Again, certainly we weren't able to accurately project the -- the records that would be required or sort of the complexity associated with the

records, or the -- the kinds of things we would have to do in all cases to do research and to make the information available to you. We've been trying to shoot very high in terms of getting things out within the 60-day period. I think we had a target of 95 percent. We're falling below that. Over the last -- again, the last three or four months, I think there've been increased numbers in terms of the requests and we've done a number of things in the Department to try to compensate for that and to make sure that we're able to do a better job. At the sites, in some cases they had underestimated the personnel needed to -- to provide the records. They've made some adjustments; they've shifted some individuals around, and in some cases assigned new individuals to support those activities. They've also looked at processes and mechanisms to be more efficient and more effective in terms of delivering, and we're working on that. And we've established points of contact for the various activities to have individuals that are dedicated to that, that they understand it, and they're working on that on a regular basis.

We've instituted and partnered with our -- with the organizations in terms of providing training. We've had some very good training sessions and I think that we're going to continue with those things. And we're looking to have sort of a joint all-hands meeting between DOL and NIOSH and the Department of Energy to kind of work through things in terms of how we can do them better.

We've also, within the Department of Energy, (unintelligible) some additional resources. From time to time we go to the program offices, we ask them for help in terms of retrieving and researching records and understanding what might be needed so that NIOSH and DOL can do their jobs.

We've also recognized the -- sort of the uniqueness of what we call Legacy Management. They have a responsibility for maintaining records and various activities associated with what the Department describes as legacy management, things that we've cleaned up to a certain point but we still have a DOE responsibility in those areas. They have some unique skills and some unique capabilities.

They've been working with us and helping us to research and make those -- make certain things available. And so we think that you'll see in the upcoming months and next year even better processes within DOE because of the partnering that we're doing within the Department with the Legacy Management organization.

A little bit about sort of our current research. You've heard -- these are the ones that are high on the list of -- of our office right now. Chapman Valve, we were able to complete the activities on that and the information is available for you right now.

In terms of the Dow Chemical, we are still researching and trying to exhaust, you know, all reasonable efforts to provide some information to you in this area. We've reached out to the FBI to help us to look at some of the documents in terms of whether or not we can get some additional information on things that we couldn't actually see ourselves. But we're hoping to be able to reach closure on that in the very near future.

The last three that you see here are things that are -- ones that are -- we're becoming

much more aggressive now that we're able to work through the two on the top, and should be providing some information to you shortly in that area.

The last one, again, is just kind of a restatement of the -- the Office of Legacy Management and the kinds of things that we're doing with -- with that organization. And so, again, you'll hear more from them in the future because they'll be helping us to address some of your concerns.

This is actually the last slide here, I believe, and I'm happy to answer any other questions or give more details regarding what we're doing at Department of Energy on any of these items.

DR. ZIEMER: Okay. Thank you very much, Dr. Worthington. We appreciate the level of support we've seen from you and from Glenn Podonsky. It's been very helpful.

Board members, questions for Dr. Worthington? Or comments? Yes, Mark Griffon.

MR. GRIFFON: I just wanted to follow up on -- we had asked before about the Mound records that -- the issue that they may have been

buried or whatever and were -- and was there an attempt to recover them or -- and where -- where that kind of stands. I know you were looking into it or...

DR. WORTHINGTON: Yes, I want to give you a status in terms of where we are. We've had quite a bit of discussion in the Department, and we've been very thorough, we believe, in trying to come up with what would be an estimate in terms of being able to retrieve the documents. And we've looked at some of the challenges that we might have in being able to do this. Right now our position is that we were -- are waiting to hear about the SEC, if there are any decisions on that. And we would look to that decision, as well as some collaboration with NIOSH and Department of Labor, about next steps. And so we have gathered quite a bit of information. We're waiting for some additional pieces and then we would make a decision on -- on doing that. We have not yet closed the door.

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

(No responses)

If not, thank you again for that update --

DR. WORTHINGTON: Thank you.

DR. ZIEMER: -- and we look forward to continued interactions with the staff there.

DOL PROGRAM UPDATE

Next we're going to have an update -- program update from Department of Labor. Jeff Kotsch is here and Jeff, I think we still have time on the agenda to hear from you.

MR. KOTSCH: Good afternoon. Is this audible back there or...

I'll start. We've got the standard format for these presentations and we're trying to look at some other ways to present some of this data 'cause it's kind of number-intensive.

Part B, just as a summary, started back in -- or it became effective back in July 2001. Part B is the side of the program that deals with cancers, silicosis, beryllium-related diseases. As of September 19th -- the date varies a little bit through the presentation -- we've had 58,876 cases with 85,380 claims. Again, there's always more claims than cases because once -- if the employee passes away, there's -- could be more than one survivor. Of those,

38,321 are cancer cases, and I think this number -- we try to coordinate with Larry; I think this number is -- at least hopefully the same, 25,238 cases that we've referred to NIOSH.

The Part E side we inherited from DOE, and that was enac-- that was enacted in October 2004, became effective for Labor in June of 2005. That's the side that deals with exposure to toxic materials at the -- at only DOE sites. Part B is effective for both AWEs and DOE sites; Part E only for DOE sites for the -- for the amendment to the Act. On that side we've had 48,518 cases from 66,879 claims. And we inherited 25,856 cases from Department of Energy.

To date, Department of Labor has paid out $2.9 billion in total compensation, Part B and E. $2.1 billion is Part B and $1.6 billion of that has been for cancer cases and $257 million for RECA, the Radiation Exposure Control Act, cases. $815 million are Part E cases and another $168 million in medical payments.

As far as the payees under the program, there have been 33,620 total payees. Of those,

26,563 have been Part B payees. And then as that breaks down, 10,942 are cancer, 4,810 were at NIOSH and 5,168 were RECAs. And then the remaining 7,057 were Part E's. If you look at the pie chart, just as a correction, the two pies on the -- pie -- slices of pies on the right, the cancer one should actually be 39 and the RECA one 19, and then if you were adding up, you -- now it adds up to 100.

DR. ZIEMER: Say that again, Jeff. The case--

MR. KOTSCH: Yeah, the cancer cases, it's showing 35, it should really be 39.

DR. ZIEMER: Thirty-nine.

MR. KOTSCH: And the RECA's showing 15; it really should be 19. We just -- I didn't -- I'll take the blame. I didn't proof that after it was produced.

UNIDENTIFIED: (Off microphone) (Unintelligible)

MR. KOTSCH: Excuse me?

UNIDENTIFIED: (Off microphone) (unintelligible)

MR. KOTSCH: Yes, that -- that arithmetic stuff baffles me sometimes.

The Part B cancer case status, 38,321 cases

having -- with 58,638 claims. We've had 29,308 cases with final decisions. That means they've gone all the way through the process and have gone -- final decisions to the claimants. 2,316 have recommended decisions but no final decisions. That means they -- they are now currently with our Final Adjudication Branch, at which point the -- the claimant has the opportunity to basically contest the -- the recommended decision and ask -- request a hearing if they'd like, or whatever they want to submit as far as additional evidence or objections. 4,347 are at NIOSH currently, and we have 2,350 that are pending initial decision. Those would be at the District Office awaiting a determination of the recommended decision. So about 69 percent of them have final decisions.

This is the standard graphic for the cancer case final decisions. On the left side of the bar is 11,114 final decisions approved; on the right side, the red bar, is 18,194 and then the breakdown to the right of that for the reasons that those cases are not -- those cases were denied. And the principal driver is 11,800 --

sorry, sorry, 11,093 cases with POCs less than 50, and then the other reasons are non-covered employment, insufficient medical evidence, non-covered conditions or ineligible survivors.

Now of the ones that we referred, the 25,238 cases that we referred to NIOSH, 19,209 have been returned, 1,931 of those have withdrawn -- have been withdrawn, to give you 17,278 dose reconstructions. The primary reason for the withdrawals more recently are classes that are coming into the SEC and we withdraw them prior to them having a dose reconstruction. There are also other smaller drivers for withdrawing cases. The claimant may have died or the employee may have died. There may be no survivors, in which case the case basically just comes back to -- to cease adjudication. Or there may be other reasons of the case has dropped out. Maybe whatever cancer was initially considered is no longer verifiable or documented or something like that.

Okay, 17,278 dose reconstructions. We've -- I'm sure this number is different, 1,752 reworks sent back, and we still have 4,101 initial referrals back at NIOSH.

So the -- again, the 17,457 cases that we have with dose reconstructions, 89 percent have final decisions. That's a little over 15 and a half thousand cases. We have 1,430 recommended, but no finals. Again, they're at -- with our FAB. And we have 480 pending recommended decisions in our District Offices. Now the new SEC-related cases, we have 1,360 that's we've withdrawn from NIOSH for SEC reviews. That has resulted in 1,022 final decisions, 853 of those are approvals, 69 are denials; 156 recommended but no finals again, they're with FAB; 81 are pending and I think last time when the presentation was given by Christie we didn't have this last number, the 102 closures, and that'll give you the -- that'll allow you to sum up the numbers to give the -- get the total. Closures are just ones that are -- again, the case is closed for some reason. Again, it may be the employee's passed away, there are no survivors. For whatever reason, that case is administratively -- the processing of that case is administratively stopped. Again, 82 percent are final decisions or have had some final decision.

Related to NIOSH -- or compensation related to NIOSH cases, $869 million in compensation has been paid out. That's 8,900 payees in 5,824 cases. Of that, $719 million were on dose-reconstructed cases for 4,810 cases, and $150 million on the added SEC classes. That's 1,014 cases.

And then as we do, we just have some summaries of information so far related to issues that are here at the Board -- or in front of the Board for this meeting. So you'll see NU-- we have both NUMEC and Parks listings for cases. In the -- in the case of Apollo it's 250 cases. They're only Part B again. 54 dose reconstructions, we've had 58 final decisions, 27 Part B approvals and paid out $4 million in compensation.

We list the NUMEC listing there for -- there've been five Part B approvals for $600,000.

The Hanford listing there for -- this would be both Part B and E, 7,866 cases, final decisions on 2,678, 830 Bs -- B approvals or 830 -- I'm sorry, 885 E approvals for -- total for Part -- Part B and Part B of $147 million.

Sandia Livermore, we've seen about 221 Part B

and E cases, had 34 NIOSH dose reconstructions, 54 final Part Bs, 15 B approvals, nine E approvals for $1 million in compensation.
Y-12, 11,182 Part B and E cases. There've been 2,100 NIOSH dose reconstructions, 3,834 B decisions, 2,408 B approvals, 1,853 E approvals for $443 million. The B approvals I think would be -- a lot of SECs there.
Blockson, 201 cases, 108 finals -- Part B decisions, 14 approvals for $2 million.
Fernald, a little under 3,000 cases, 776 NIOSH dose reconstructions, 957 Part B decisions, 353 approvals for Part B, 302 for E, $69 million in compensation.
Chapman Valve, 215 cases. We've had 111 Part B decisions, 34 approvals. That's $5 million.
Dow Chemical is -- we've seen 313 cases, two NIOSH dose reconstructions. We've had 29 final decisions for Part B, two approvals, that's $300,000.
Bethlehem Steel, 1,354 Part B cases, 712 NIOSH dose reconstructions, 799 Part B final decisions, 326 approvals, that's $48 million.
Rocky Flats, about 5,300 Part B and E cla-- ca-- cases, 1,017 NIOSH dose reconstructions.

Labor's rendered 1,622 dec-- final decisions, 713 B approvals, 726 E approvals, and that totals out at $105 million.

Again, just because those are -- those are the ones that are in front of the Board this week, just to give you a little background. I don't know why...

Anyway, questions?

DR. ZIEMER: Okay. Thank you, Jeff. Comments or questions, Board members? As always, there's a slight difference in the NIOSH and the DOL numbers for dose reconstructions, but we understand the reasons for that. But anyway, thank-- we appreciate knowing that -- it's always of interest to -- you get a feel for what the com-- total compensations are for the various programs, and the scope of that. Often we hear comments that no one is getting compensated, and in reality, quite a few people are in fact. So I appreciate getting those numbers as well.

Other comments, Board members?

(No responses)

Thank you, Jeff.

MR. KOTSCH: Okay, thank you.

DR. ZIEMER: Now we're going to have time for a break before our public comment period, about 15 or 20 minutes actually. Any housekeeping instructions for us, Dr. Wade?

DR. WADE: I think we're one presentation behind. We didn't want to rush Jim Neton's presentation 'cause it's a substantive one and --

DR. ZIEMER: Not that the others weren't substantive, but it's even more so.

DR. WADE: Even more so, but we have time for -- we'll have time in the agenda for that tomorrow or Friday.

DR. ZIEMER: Good, let's take a break till 5:00 o'clock and we'll resume with our public comment period.

(Whereupon, a recess was taken from 4:40 p.m. to 5:05 p.m.)

PUBLIC COMMENT

DR. ZIEMER: Thank you very much. We'll resume our session. We're -- we move now to the public comment session of our meeting. I've had a number of people sign the request to make public comment. I'll just take them in the order that they appear. At least one person is

on the phone, hopefully. Let me check first. John Ramspott, are you on the phone?

UNIDENTIFIED: (Off microphone) (Inaudible)

DR. ZIEMER: He is, okay. Just stand by. Our first speaker then will be Dr. Dan McKeel. Dan, welcome. We'll hear from you first.

DR. MCKEEL: Good afternoon, Dr. Ziemer and the Board. Two days ago, on September the 30th, I received the long-awaited HH-- HHS letter dated August the 30th, 2007 related to extending the Dow SEC number 79 to cover the residual contamination period from 1961 to 1998. The letter was in response to a letter from Dr. Ziemer and the Board in late May. Dr. Ziemer's letter requested the Secretaries of Labor and Energy to assist their Departments to look into the Dow SEC extension to cover the residual contamination period.

The HHS letter came to me in a roundabout fashion. That is, an HHS aide sent it, upon a request, to Robert Stephan of Senator Obama's staff -- to Mr. Stephan, who then forwarded a copy to me. The four months' delay in not being sent a copy by the Board directly in my role as Dow co-petitioner was both surprising

and very disappointing. Since the July 19th Board meeting I had asked Dr. Ziemer and Dr. Wade several times about the status of the HHS letter, with no clear response, and I wonder why I was not given this letter sooner.

The content of the letter made it clear to me that Director Gerberding of CDC, who wrote the letter on behalf of HHS Secretary Mike Leavitt, was either unaware of or overlooked certain salient facts about the Dow SEC. These facts I would now like to place in the public record are as follows:

One, NIOSH, which was not charged by the Board to do so, unilaterally undertook to query Department of Labor and DOE via a May 8, 2007 e-mail about changing the coverage period and the facility description on the Dow Madison, Illinois site. This e-mail, which was directly and intimately related to the Board's two unanimously-passed motions on the Dow SEC by Dr. Jim Melius on May 4th, was withheld from me until after both DOL and DOE had responded, thereby eliminating me from having meaningful input. The e-mail ignored my testimony to the Board on 5/4/07, four days earlier, about the

Dow SEC petition and the validity of extending it to cover the residual period of 1961 to 1998. The framing of the coverage facility issues was markedly different in that May 8th e-mail than the way I see them. I did not mention they were -- the reply, I'm sorry; the e-mail of -- of May 8th did not mention either the worker affidavits about truckload quantities of thorium alloy shipments going to Rocky Flats for AEC work, for example.

Four, Dr. Gerberding is apparently unaware that I strongly rebutted Pat Worthington's DOE response letter dated 5/22 to Larry Elliott, or that I am still awaiting a final response and/or the interim response that was promised to reach me before the October Board meeting. I should add that today I was happy that I did receive this interim letter this afternoon at about 1:00 -- 1:15 today.

Number five, Dr. Gerberding also does not acknowledge that DOE is reassessing its determination by performing forensic FBI character recognition on Mallinckrodt AEC and Dow Madison purchase order 316 that relates to the thorium plate alloys where the following

letters, 21A, which my group believes strongly points to these being a magnesium and thorium alloy, are clearly readable to me but are not eligible (sic), according to Peter Turcic, to DOL or to DOE. This point continues to truly amaze me.

B, DOE is also searching for additional documents that relate to thorium alloy shipments to Rocky Flats and to the possible use of these materials in nuclear weapons.

Six, and finally, the HHS August the 30th letter does also not mention that on October the 1st Senator Barack Obama of Illinois sent a letter to Peter Turcic of DOL asking him to state his view of the weight that should be afforded direct, eyewitness testimony and affidavits by knowledgeable Dow Madison workers, including some non-claimant supervisors, that the site shipped magnesium thorium alloy in quantity to three AEC facilities. My group, the Southern Illinois Nuclear Workers, asserts that some of this material either was used in or contributed to the production of nuclear weapons. I do not believe that Mr. Turcic has yet responded to

the Senator.

I, as Dow SEC petitioner, thus feel that I have been treated very unfairly in -- in having both the NIOSH May 8th, '07 e-mail to DOL and DOE and Dr. Gerberding's HHS letter of August 30th withheld from me. Although I appreciate DOE's willingness to explore this issue further, it is disappointing that answers have not emerged in time to have the Board vote at this meeting. These two actions have seriously undermined our efforts to have the Dow SEC extended to cover 1961 to 1998.

For the record, it is now 13 months since I was first notified that Dow Madison would be recommended by NIOSH for an 83.14 SEC petition.

My final comment relates to ongoing dose reconstructions at Dow Madison. The number of cases now in the SEC has decreased from 53 to 47, reasons uncertain to me. Of the remaining Dow claims at NIOSH, only eight have been assigned a health physicist, while 81 have not. Why is this? How can they ever have a dose reconstruction done with no site profile and no TBD 6000 appendix? These claims have been at DOL for months. Two DR -- two dose

reconstructions have been completed.
And finally, I would also note for the record that the transcripts of the 5/4/07 and the 7/19/07 Board meetings where the Dow SEC extension was discussed have still not been delivered to me. Thank you very much.
DR. ZIEMER: Thank you, Dan. I do want to add a comment, which I did pass on to Dan privately earlier. The letter from Director Gerberding which is referred to is dated August 30th. Board members, you would have gotten your copy by e-mail yesterday. That letter was held by the government for 30 days in the form of the U.S. Post Office, where my mail was being held for several weeks because I was on travel. I did not see the letter, either, August 30th, not till just before this meeting and I brought a copy with me. I -- it was not sent in the electronic form, so actually Dr. McKeel probably saw that letter before any of the Board members, before Dr. Wade, I know before Dr. (sic) Elliott. So although it appeared to be a delay, I think he was the first to know. I did bring the letter with me and -- and checked with Lew on it yesterday when I

arrived, and learned that no one had gotten a copy of that letter and it was immediately -- we obtained it in electronic form then and it was immediately sent to the Board members and to Dr. McKeel. However, he had already received it by the circuitous route that he described in his comments. But I do want to make it clear that there was no -- certainly no intent on my part to delay that letter. It simply -- I -- I simply did not get it myself, physically, till just before this meeting. Nonetheless, we understand the comments that were made and the concerns that Dr. McKeel has. Also, we're aware from Dr. Worthington's comments that DOE is doing some follow-up on -- on some of those issues, so that -- the book is still open, I think.

Okay, let's proceed. I -- I next have John Ramspott on -- on the schedule, is -- and I think we heard that John was on the line. Last time John tried to speak to us and the phone connection was very bad and we had a great deal of trouble. But John, I'm hopeful that we can hear you this time.

(Extreme feedback)

We'll try again. Go ahead.

(Extreme feedback)

(Pause)

How are we doing? Is John still on the line?

UNIDENTIFIED: (Off microphone) (Unintelligible) still on the line (unintelligible).

DR. ZIEMER: Okay.

(Pause)

MR. RAMSPOTT: ... hear me. Hello?

DR. ZIEMER: Yes.

MR. RAMSPOTT: Dr. Ziemer, can you hear me now?

DR. ZIEMER: Yeah, proceed.

UNIDENTIFIED: (Off microphone) (Unintelligible)

MR. RAMSPOTT: This is John Ramspott in St. Louis, Missouri. I'm calling on behalf of workers and families from General Steel Industries in Granite City, Illinois. I would first like to begin by thanking the Board for allowing me the opportunity to make these public comments. I had hoped to be there with you, but due to some medical emergencies in the family I needed to stay home.

I appreciate everyone's involvement with the

now-ongoing evaluation of the General Steel Industries Appendix BB by SC&A. This type of review or official review has been one of my primary goals from the very start of my involvement with the General Steel Industries site. It all started approximately two and a half years ago.

I thank NIOSH for creating those documents so we had something to work with. I've been told that this is a living document and I hope to help make that a living document by all means possible. I fully realize that these types of documents are not easy to do or prepare in accurate manner under 50 years of working with many times incomplete information and that is why I have really dedicated some time to trying to help all parties with this information.

I ask that the research regarding General Steel Industries, and in particular the two Allis Chalmers Betatrons plus numerous other non-destructive sources and procedures, now be given full consideration that General Steel Industries had been selected or given a kind of priority status authorized by the Board to do a full review. We cannot thank you enough for

that action. I listened in on the conference call a couple of weeks ago, heard essentially a unanimous vote of the people from the Board who were there to authorize SC&A to do what they needed to do to get the best information possible, and I, again, cannot thank you enough.

That by itself is quite a task, considering the fact that the Betatrons have really never been explored, to my knowledge, at any of the sites to this depth or this detail which we hope will take place at General Steel. We find the fact that they were not explored at General Steel a little confusing considering they were the main reason for sending uranium to General Steel Industries beginning in 1953, which of course is confirmed -- that date, '53, is confirmed in -- in other document -- it was actually for Mallinckrodt Chemical Works. That document states the Betatron slices were sent as they were collected to General Steel Industries. So looking at the Mallinckrodt document as 100 percent total credence that all this started in 1953, so there should be no doubt because of the two related documents that back up this

fact.
It was also mentioned in the government cleanup reports and why they were never considered is beyond me. Experts knew what they were. But that is, quite frankly, water under the bridge. This is now. And considering the fact that the Board has requested SC&A to do this review of Appendix BB and of course the McKeel-Ramspott critiques, I really am confident that we will get the job done this time.
I would also ask that the replies to the McKeel-Ramspott critiques to the General Steel Industries Appendix BB which were noted in the last meeting in the state of Washington would be included in this total review process since they certainly are part of the basis for the Appendix, and it was stated by NIOSH that there was no need to change anything at this current time. We of course, for the record, have been advised by NIOSH to reply to their response where we feel necessary, and we certainly will be doing so. I wish to thank NIOSH for that offer. The door wasn't slammed. It's wide open and I certainly respect and thank people for that offer.

Because of some of the very technical topics, I felt it best and appropriate to do this reply in conjunction with, but totally separate from, the SC&A review. I was told that the Board was going to be made aware of these recent critique replies from NIOSH, as well. So as usual, and as always, I would certainly welcome any review by the very knowledgeable, professional Board members which I have met over the last two and a half years. I've always said that if I'm mistaken or do not fully understand something, I would certainly take constructive criticism or suggestions ver-- very sincerely and thank you for them. So I hope Board members'll be able to take a look at those replies we received from NIOSH as well.

And I really believe the Betatron device at NDT* should have received much more I guess investigation long before now 'cause they were commonly used at many sites and we now have a more detailed Allis Chalmers site list which is available. This is an actual, or partial, published Allis Chalmers customer list thanks to various other (unintelligible) sources and individuals who have helped me with this

research project. Allis Chalmers, of course, is only one of the Betatron manufacturers -- GE, (unintelligible), Siemens, et cetera built the machines as well. These are not by any means your everyday chest X-ray devices that are commonly referred to as part of the various site evaluations. Any comparisons regarding exposures and doses would be totally inaccurate, in my opinion. If the X-rays are considered dangerous, as they apparently are, what do we think about 24 or 25 million volt Betatrons? That 100 percent addressing Betatrons and other forms of non-destructive testing that involve radiation and radioactive material at all sites appears to be in direct conflict with TIB 6000 and 6001 where they do say -- I'm going to paraphrase this -- all radiation sources must be addressed during the approved AEC contract periods. And I underlined "all radiation sources". Apparently they cannot be bundled or grouped. They seem to be, according to this document, individually addressed.

This was confirmed during a past conference call about a year ago -- actually -- when the

appendix was released, probably nine months ago, ten months ago. There were ten participants or agencies on the line, one of which was NIOSH and I thank them for their time and consideration on setting the record clear. People have tried to make the rules very clear. It is the exact details and procedures that I hope we can all work together on to make GSI appendix a truly accurate document.

Again, there's a vast amount of research material regarding this device. It's available, and has been for quite some time. I just happen to be a curious individual and no physicist, but I have been requesting the assistance of professionals for this type of expertise. The Board in this latest action, and NIOSH, and now SC&A -- certain will make that happen. I appreciate the preliminary work done on behalf of NIOSH, SC&A and many others for starting the investigation. It has been too long overlooked for this well-known radiation source.

Many of the GSI workers, their families, asked me to thank the Board for its willingness to open up this overdue investigation. This is

much larger than General Steel Industries. Those people, too, deserve this full review. I have a collection of documents, what have you, that will show and prove that these machines were in many, many locations. Everything was done manually. There was really no automation with this device, so the exposures were definitely real. The internet and both public and university libraries are full of data. One in particular which I just sent to both NIOSH and SC&A is from the University of Illinois. That's where the Betatron was invented by Donald Kerst. The University archives people were very, very congenial and helpful. The title of that document is "Activities Induced by a 20-million Volt X-ray to Various Elements" -- it actually came from the original document at the U of I Library archives Dr. McKeel and I located on a recent visit to U of I. I returned a couple of weeks ago to the library to look for any additional material and I have now forwarded that to SC&A and NIOSH. I think you'll find it very interesting. I'm sure they'll share with you, or I'd be happy to e-mail it to you.

In closing I really, really appreciate what everyone's done. I look forward to working with you in the future. And as usual, if I'm wrong in anything, please let me know. I'm trying to get this accurate and respect everybody that's helped me with this project. Thank you very much.

DR. WADE: Thank you. Okay. Put us back on, please. Put us back on. Thank you.

DR. ZIEMER: Thank you -- thank you very much, John. And this time we could hear you very well and very clearly, so we appreciate your comments.

Next we'll hear from Gertrude Martin.

MS. MARTIN: I, too, would like to thank you for this opportunity to speak with representatives from NIOSH and the Advisory Board. And I, too, appreciate the fact that this is continuing because it shows that there is some concern for the workers after all. Initially when we began this process we got to a certain point in the process and we were told, because of his -- both of his cancers, to continue with this because they could probably qualify -- he could possibly qualify as a

claimant, so -- which we did. But at one point we felt like we were just going through a process and that no one was really considering the individuals. And I mention that because all of us in this room -- none of us are clones. Am I correct? We're individuals, and we have different reactions to different exposures. I may be exposed to the same thing my husband was exposed to, and never come down in my lifetime with a disease. He, on the other hand, did come down with it.

I came across something on the Internet whereby an independent study was done of dose reconstructions. And the words in that -- that report kind of underscored the fact that this was not an exact science. There are so many problems with the reconstructions. First of all, we all know that Blockson is no longer there. Building 55 was torn down years ago. There was no remediation of the site. There were no records kept. Everyone is scrambling to try to find some records that they can go by. In fact, at the last town hall meeting last month -- and some of you -- I see familiar faces there -- it was brought out that there

was some urinalysis done of a certain number of employees. As I stand here, we can say -- he worked in that place -- there were no urinalysis (sic) done for him. There was no badge monitoring done for him. There was no safety precautions based on what he was exposed to. In fact, let's begin with the fact that most of those people didn't have a choice that they could have had, had they known what they were working with. They had an opportunity to do a job for the company. And many of them were like he. He is known as a really good worker. He worked there at Blockson for 40 years, and anybody knows him would tell you he almost lived there. He used to get mad at me because I didn't tell him when somebody called him to come to work. But what I'm saying is these workers were conscientious. They thought here's an opportunity to do a good job. They knew there was something different about it because they had to have clearance. But they still were not told that they could be exposed to harmful substances. Had they known that, they may not have made that choice. They may have said no, I don't want to take a chance on

it. And even as they were working there, if the government at that time had used known precautions in having these people work around this yellowcake, it might have afforded some protection for them, but they didn't do that. So I -- I want people to bear with me 'cause they've heard me say this before. We know those people worked there. We know they were exposed. We know there were -- there was no monitoring. We know -- we know there was no bioassays done. And in this report that I saw of an independent audit of a dose reconstruction that was performed by NIOSH, there were some words in here that I thought was worth noting. They talked about the worker likely experienced internal exposures. It is believed to have had routine X-rays. The worker was not provided with film badge or thermoluminescent dosimeters, nor were bioassays performed to estimate internal exposures. As a result, exposures were estimated. Now see, that's different from knowing something. You're talking about estimating, you can estimate a lot based on what you knew happened at another plant. But

with Blockson not being there, you cannot prove that that happened at -- at Blockson.

They were trying to determine whether the exposures were derived in a scientifically valid manner and whether the doses were derived in a claimant-favorable manner. And as we -- I got over to one of the pages that said here we cannot verify that the external dose rates from drum handling reported in the TBD are scientifically correct and claimant-favorable. In fact, we ba-- we believe an error was made in NIOSH calculations which has resulted in underestimate of external doses, and I believe that is the reason why we're here today. Am I correct?

But there's something else I wanted to say. I didn't say this in public before because I didn't want to be misconstrued. The government had a responsibility in this whole thing. Just like we have a responsibility to pay our taxes on time so that the government has money to work with, the government, I believe, has the responsibility to protect these workers, to provide them with the best safety that they can. This was not done. And we know that

responsibility is one of those core values we try to teach our kids, take responsibility for what you do and so forth. Overall, I believe that that alone should be something that looms large in your consideration for these claimants. Some of these people were fortunate. Like my husband is still here with me today, for which I am very happy. But is that because of what happened to him at Blockson or was that because we followed up with his health care and were lucky enough to discover these things before they became manifest?

For example, one of his cancers was bladder cancer. It just so happens I'm an old nurse -- I've been nursing for 30 years -- but I recognized that you should not see blood in your urine. He called me up and he said I see this, and I said well, go to your doctor right away, go to your urologist, the same one that treated him for the prostate cancer, and he had bladder cancer. But now look at the number of people that didn't have that available to them. So sometimes you look at it and you say well -- somebody made a remark that some of these

people are gone, and that is true. They're dead, their families are there trying to speak up in their behalf. I'm fortunate that he's still here. But at the same time, that does not absolve the fact -- and from the fact that he was not treated fairly when he was working for Blockson.

And don't get me wrong. He did derive some benefit from working at Blockson, and it helped us to have a decent living. But that does not absolve them from what they did.

And I thank you again for the opportunity and hopefully -- that at least be a voice.

Now they -- they talk about what they did over and over and over at that plant, but I don't think that you'll ever get to the bottom of what they actually -- what actually happened there because it's all -- all gone. Thank you for the opportunity.

DR. WADE: Thank you.

DR. ZIEMER: Thank you very much, Gertrude. Let's see, according to my notes, Marilyn Schneider would wait till tomorrow to speak. Is --

UNIDENTIFIED: (Off microphone)

(Unintelligible)

DR. ZIEMER: Yeah, we'll do you tomorrow then, Marilyn.

Actually that then completes my list for today, but let me give an opportunity -- is there anyone that wished to speak that did not have a chance to sign on the roster?

DR. WADE: (Off microphone) (Unintelligible)

DR. ZIEMER: Apparently not. There will be opportunity tomorrow again. We have another public comment session so we're now going to recess and -- oh, quick--

UNIDENTIFIED: (Off microphone) I should have said something while I was standing (unintelligible).

DR. ZIEMER: You're welcome -- we'll -- you're welcome -- you certainly don't want your wife to have the last...

MR. MARTIN: I'm Edgar Martin and I worked at Olin* Chemical Box and Works for 40 and a half years, and when I was -- I was contact to see if I wanted to work in Building 55. I was being investigated by the FBI, and after the investigation it was declared that I could go in Building 55 because of my record. I went in

Building 55 in 1954 and I stayed there until 1957. The place was completely secure. All the windows and all the doors were locked. We had a -- a -- a deputy sheriff in -- in -- in the room to stop anyone coming in -- in and out for security. I worked there and I was a operator's assistant. But what I did, I treated the different (unintelligible) with -- with (unintelligible) and (unintelligible) and different other things, and then I assisted the operator. But during the time that we were working there we were not told that this was -- that this is uranium that you're working with. We did not know that until later on during the -- during the time we were working there that we were working with uranium.

During the time of the processing we'd come in contact lots of times whereas we couldn't use gloves. We had to use our bare hands doing -- to get the work -- get it done right away. And the main reason for that was -- was time. Time was involved. When I worked -- working at the -- with Olin at this time they had no protection at all or nothing to keep the person from getting sick. The main thing that

Blockson wanted at that time was production. You get the production, you're a good guy. Okay? And I've got bladder cancer and I have prostate cancer, but I'm still alive. Thank you.

DR. ZIEMER: Good. Thank you very much. We then will recess till tomorrow morning at --

DR. WADE: 9:30.

DR. ZIEMER: -- at 9:30, so look forward to seeing many of you then. Thank you very much.

(Whereupon, the session concluded at 5:45 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 Oct. 3, 2007; 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 6th day of November, 2007.

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STEVEN RAY GREEN, CCR

CERTIFIED MERIT COURT REPORTER

CERTIFICATE NUMBER: A-2102