ENVIRONMENTAL PROTECTION AGENCY

TSCA SECTION 402(c) LEAD EXPOSURE REDUCTION STAKEHOLDER MEETING FOR THE PROPOSED RENOVATION AND REMODELING RULE

Monday, December 7, 1998

Holiday Inn Westpark
Rossyln, Virginia

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TABLE OF CONTENTS

P R O C E E D I N G S (9:19 a.m.)

Agenda Item: Welcome, Introductions, and Background

MR. CASEY: My name is Sean Casey. I'm your facilitator, along with Scott Graves. We're already a little behind schedule, but we promise to make it up.

[Administrative remarks.]

Until about 10:15 a.m. this morning we are going to hear some presentations from people from EPA on the status of where things are and what they hope to get out of today's meeting.

Then for the rest of the morning, and then into the afternoon, you have been asked to have a discussion around a couple of issues related to the development of the proposed rule. I will let Mark and Mike talk to that when we get into it.

We have set aside a little more than an hour for lunch. If you are not familiar with the area, Scott will kind of give a briefing of what your options are when we get to it. To the extent that you talk long, that's great, but your lunch gets cut a little short.

Before we get going, what I'd like to do is go around the room and ask everybody to introduce themselves, their name, and if you are here representing anybody in specific, please state that.

[Introductions were made.]

So with that, let me introduce Mark Henshall, who most of you know from EPA, who is going to give us a little overview of what we are here to talk about.

MR. HENSHALL: First off, I want to thank everybody for coming, and explain very briefly why we are here, why this meeting is important, and why there are only two agenda items, because I think some people may question why we are only talking about two different things.

To give you a little bit of history being what we are doing, TSCA Section 402(c) was the main training and certification part of the big Title X in the lead bill that was passed back in 1993. The first part of the statute of Section 402 directed EPA -- and that's an important term -- directed EPA to regulate abatement contractors, renovation contractors, inspectors.

It told us very clearly what we should do them. We should require them to be certified, require them to be trained, set up training programs, accredit training providers, all of that. It was very clear that Congress had in its mind that it wanted abatement activities -- and it defined abatement very clearly and very narrowly as an intent driven activity -- Congress wanted those people to be regulated. They were clear about that.

When EPA is given that kind of explicit direction, it makes our life a lot easier, because all we have to focus is not who is in the rule, but how do we go about regulating them. Even that took us four years to do.

In the second part of 402, Congress told us to study the effect of renovation and remodeling on individuals who live in homes that are having renovation done. They wanted us to find out what renovation contractors, or what activities that

they engaged in posed a hazard.

Then they went on to say that we are to then take the results of that study, convene a group of individuals such as yourselves, and make a decision about who amongst the enormous array of people who consider themselves, or we would consider them renovation contractors, who, in their activities, pose a hazard to individuals, and as a result of that, warrant regulation.

That is a much more difficult problem for EPA, because we have to decide who has to be regulated, and that's a lot harder than the task that we faced back when we were dealing with abatement and risk assessment and inspection. Then we only had to deal with how do we regulate them. How do we certify them. How do we train them; those sorts of things.

So sort of in the timeline, we have effectively completed our study, and Dan Reinhart is going to be talking about that in a minute. We have convened today's panel, which is the second half of the direction that Congress gave us. But the most critical part of the rule, and the most difficult part for EPA is going to be deciding to take that data, to take all of your input, to take all of our knowledge, and to decide who, if anyone, should be regulated, and what we ought to require of those individuals in terms of regulation.

So today we are going to spend seemingly an inordinate amount of time just talking about how we draw this bright line. I use the word "bright" line carefully, because when we are writing a regulation, as all of the state regulators know, and

probably people from PDCA and other regulated industries understand, you need to have a bright definition of who is in, and who is out.

So when we are talking about the criteria for who ought to be regulated, that always has to be in the back of you mind, that you have to understand that you will someday be regulated by that standard, or will be regulating someone under that standard.

So you have to make it clear to the regulated community when it is required that they be a certified contractor; make it clear to the general public when is it required that they use a certified contractor; and it really ought to be clear, up front before the job even starts. So all of that has to be sort of in the back of your minds.

Now in saying all of this, the agency has an enormous array of possibilities in front of it. Presumably, one of those possibilities is to not regulate anyone. We could choose or decide that the cost of regulation does not outweigh the benefits of the potential rule. So I don't want to have anyone here think that the agency has made a decision that we will go forward with a rule. We have no sense, sitting here today, about the potential size of that rule.

In a little bit, Mike is going to sort of throw out some options that we have talked about, and you have seen the materials about this cut off, this bright line. There is an age of housing cut off. There is a square footage cut off, and there may be others. I want to make sure that if you see your favorite is not on the list, please bring it forward.

That's why it's so important why we are here today. And that is why the

agenda is so very, very limited to just two items. One is who is included. Then the other issue is sort of the back end, and I guess that's equally important. I haven't talked much about that, but once we decide someone should be in our regulatory scheme, how do we insure that they do a job that is safe?

Because that's really the goal of this rule, is to try and insure that people who do renovations, do not pose a hazard to people living in housing, or I guess to themselves. So the second half of the meeting we are going to talk a bit about how we determine the quality of performance that renovation contractors are engaging in.

The stuff in the middle -- how do we certify them; how do we train them; what work practice standards we require short of clearance, or in addition to clearance -- EPA has a much better handle on. Many of you were involved in the development of it. If you have seen our technical guidelines, those form the basis for the middle of the rule. Once we decide who is in, how we're going to train them, and how we're going to regulate them.

We're not going to talk a lot about that today. We're going to have another meeting in March to talk about the meat of the role. If you have comments on that, if you have thoughts on that, if you have read the document, and you haven't seen it before, feel free outside of this meeting to contact Mike or myself, send us written comments. Just call us up to talk about something. We'll be dealing with that later.

Today's meeting is really critical for us to move on, because without us having a sense of who potentially is going to be in and out, it's going to be really hard to

design the rest of the rule.

I'm going to conclude my remarks. Do we have anybody else in this portion?

MR. WILSON: My name is Mike Wilson, and I'm the work group chair for the development of this regulation. I just wanted to say thank you for everybody that is here today. We really appreciate you attending, and we look forward to your input.

As Mark said, this is the first of two stakeholder meetings. Today we are primarily going to speak about who is going to be included in this regulation, as well as an afternoon discussion of the clearance issue as far as work practice standard.

As he mentioned, there will be a second meeting to follow, which will be at either the end of February or beginning of March. At that meeting our goal is to have a rule outline, a preliminary draft of the rule ready that we can provide to you several weeks prior to that meeting to take a look at. We'll have a further discussion of the areas that we do not discuss today, and use that as kind of a jumping off point, that outline, to begin that discussion in February or March.

So with that, I guess we can begin.

MR. HENSHALL: One thing I neglected to do, and let me do that right now is introduce the people on the side here. First, you have met Mike Wilson. Mike is the chair of the regulatory work group. He is going to be actually writing the rule.

Next to him is Ellie Clark, that I think most of you are familiar with. Ellie has worked on lead regulations now for numerous years, and before that, many other

rules. She is sort of our regulatory guru, and is also working on our buildings and structure regulation.

Next to Ellie is Dan Reinhart. Dan is the principal investigator on our renovation and remodeling study. You will be meeting him in a second.

Next to Dan is Darlene Watford. Darlene had been involved at EPA with renovation since Title X was passed, really, and authored the first EPA guidance document on renovation.

All the way down at the end is Gary Cole. Gary is one of the economists working on the regulation.

We are going to be sitting on the side. We're not going to try and participate today. We don't want our opinions to be brought too much to bear into this meeting. What we have written down are our thoughts on the subject. We are paying Sean and Scott very good money to guide the discussion. We think that you are in very good hands.

So we're just going to sort of sit over here. If there is something that really requires our input, we'll certainly weigh in, or if there is a point of misconception, we'll try and weigh in, but we want this be as open as possible. Try and pretend we're not even there. We've got the transcript. We'll go back and look at it later. You are in their hands from now on.

MR. CASEY: We're at our second point in the agenda, presentations of conclusions and examples of supporting data from EPA studies of lead exposure

associated with renovation and remodeling activities.

Agenda Item: Presentation of Conclusions and Examples of Supporting Data from EPA Studies of Lead Exposure Associated with Renovation and Remodeling Activities - Dan Reinhart

MR. REINHART: I'm Dan Reinhart. Darlene Watford, who has worked with me now for several years on our studies is handing out a summary that I whipped up the last couple of days. Please pardon some of the typos. I was hoping to give you something a little more comprehensive, but I think this might help clarify some aspects of it.

If you would like to, please copy my phone number down. If you have any questions about the study, I would be more than glad to discuss them with you. There are a lot of details. We don't have time to cover everything that we did in these studies. I'm going to just to go through and give you the gist of what we did, and what we found.

MR. FREEDMAN: Dan, sorry to interrupt. Are you summarizing this document?

MR. REINHART: I'm summarizing that, and that contains the first two phases. I'd like to spend a little more time on phase 3 and 4 today.

So you will be able to recognize the reports, this is the cover. As Mark so eloquently explained, we were directed by Congress to conduct this study. That's why we're doing it. We're supposed to use these results to determine who doesn't need to be

regulated. Specifically, we are supposed to provide evidence that would exempt people.

Before we started this study, we spoke with literally hundreds of people. We tried to get as broad a range of input as possible about what kind of study we should conduct, how we should go about it. We conducted a literature search. We wanted to make sure we weren't going to be doing any duplicative.

The consensus from just about everyone that we dealt with was that rather than look at categories of workers, we should focus on work activities. So you will see that's pretty much what we did in all four phases.

There is also this thing about an ideal study versus what we ended up doing. The ideal study would have us collecting environmental measurements of lead, blood lead measurements from real life people and real homes. It turned out to be impractical, unethical, implausible. There is no way the idea study could be conducted. I think we did a pretty good job under the circumstances.

As I said, there were four phases. We didn't intend for them to be conducted this way. When we started Phase 1, we thought this would be the renovation and remodeling study. As we completed, we saw there were some data gaps, some opportunities for collecting other data. We expanded the study. That's what happened for four phases. I think we are about ready to cease conducting phases, although I certainly could dream up a few more.

Very briefly -- and a lot of you have seen all this before -- I want to emphasize that Phase 1 was a series of case studies. Some of them were conducted in

California, some in Baltimore, St. Louis, Columbus, a variety of cities around the country. We took advantage of as many opportunities as we could find to get the kind of data that we felt like we needed.

We focused on target work activities, things like surface preparation, carpet removal, window replacement, demolition, H-vac work. We also looked at some generic carpentry activities, things like sanding with a power sander, cutting with a skill saw, drilling, things like that.

We collected two types of environmental samples, personal air from workers, that give us an indication of inhalation exposure, and settled dust samples; 90 breathing zone samples from workers, 556 settled dust samples.

Looking at the worker exposure issue, the length of each horizon bar indicates the amount of time on average that it takes to achieve the OSHA PEL for each activity. So in this graphic you will see sanding with a power sander. On average, it takes about 42 minutes to achieve the OSHA PEL; sawing into wood, about 44 minutes; hand sanding about an hour and a half or a little more.

Certain things like drilling into wood, carpet removal, window replacement, surface preparation on exteriors, the OSHA PEL was not achieved. It just gives you a rough idea of what kinds of activities might result in worker exposure.

Looking at the settled dust, we collected dust samples at three distances from the work site: immediately below where the work was being conducted; three feet away; and six feet away to try to get an idea about the gradient of distribution of lead and

dust.

What we don't include here is sanding, which produced higher levels than anything on this graph, but what you are seeing along this axis over here is the distance from the work site, the number of different work activities, window replacement, demolition, H-vac removal. And the height of course, is the amount of lead in the sample.

So in this particular case, very close to the work site, window replacement produced a great deal of lead and dust. And as an aside, the people in the field who collected these samples noted they didn't see a lot of paint in the trays. What they saw was a lot of debris falling from behind the windows from the window casings that were taken out. That's just an aside. You might be interested to try to break that out, and get an idea of what the source of lead was.

MR. FREEDMAN: I'm curious about this. If you go back to your graph and you show window replacement, on the top chart apparently you found that window replacement could not trigger the OSHA PEL, and yet on the bottom chart you show a very high level of lead exposure from the activity close in. I'm not sure how you reconcile those.

MR. REINHART: Well, I think that if you imagine what happens with window replacement, what we are probably seeing here is not a lot of lead is coming into the air. So the lapel samples worn by the workers are not picking it up. On the other hand, what falls to the floor is another story. So apparently there is a lot of lead in the

dust that falls to the floor, but it wasn't really becoming airborne.

MR. CASEY: Dennis, you had a question?

MR. LIVINGSTON: The key distinction is are you just removing the sash and putting in replacement windows, or whether you are ripping out the jams and casing, and releasing the accumulated garbage that has built up back there, which literally pours onto the floor. So it is real important to make that distinction, because one creates virtually no, the other is a demolition activity.

MR. REINHART: I agree with you. I appreciate your pointing that out, and this was the latter. This was replacement of a complete window, not the more benign insert type window. Although the one case where I would disagree, because I think that there is still the potential to release some debris from the less intrusive measure, but not nearly as much, as you point out.

MS. BURGIO: You stated that the materials that fell into the trays for the dust sample were more solid.

MR. REINHART: I wouldn't characterize it as solid. It would characterize it as dust and debris that did not appear to contain paint. That was only the observation of the field sampling crew.

MS. BURGIO: So what to you attribute the lead to?

MR. REINHART: I could only guess at that. It's a speculation at this point. I think that might be a very interesting thing to analyze.

This table might be a little bit hard to see. We also looked at clean up. I

want to emphasize what we have done so far did not take into consideration clean up. So we wanted to see just how effective the typical types of clean the carpenters employ was. We looked at two kinds of activity, drilling and abrasive sanding, primarily because these give us the broadest range of particle sizes. Drilling provides big particles; sanding very fine particles.

We then tried two types of clean up, broom clean up and Shop Vac clean up. Without spending a lot of time, it turns out that they both can be fairly effective in terms of percentage of lead that is picked up, but in no case did we get the levels down to where we felt comfortable. There is typically still hundreds of parts per million lead per square foot. The typical clean ups are not doing the job that EPA would feel comfortable about.

Clearly blood is a better indicator of exposure. At this time, we had from these inhalation samples, a suggestion that workers might be being exposed. The big problem is how are we going to get blood samples? Through the cooperation of the United Brotherhood of Carpenters, John Repco(?) and associates, we planned a study where we got the participation of the carpenters' union. In addition, we employed what I would say are rather unusual methods to try to locate the submerged part of this iceberg of renovators; people that aren't affiliated. They may not even be licensed.

We found a total of 581 professionals. We convinced them to give us a blood sample, and to fill out a questionnaire. It's a very detailed questionnaire, about 18 pages long. We got demographic information, their work history, their habits, the kinds

of buildings they had been working in recently and long-term. We conducted it in Philadelphia and St. Louis, two cities with documented lead-based paint problems.

Real quickly, just to give you an idea, we broke the professionals into these categories, as they described themselves. Probably the most important finding from Phase 2, the Worker Characterization Blood Lead Study, is told by this graphic. That is, if you look at the distribution of blood lead levels among these 581 workers, it really doesn't look very different than what you might expect from the general population of these two cities. We are not seeing much evidence that the professionals in general are being exposed to hazardous levels of lead. Again, this is a very general, overall type of perspective.

David?

MR. HARRINGTON: I just wanted to point out that the problem with trying to do blood lead studies of construction workers is the variability of exposure. In our California Painters Project we did a subpart, an exposure study, and we found that unless we did blood leads pre and post a job, where we really had both good sort work task characterization and we really had a baseline, as well as post-job blood leads -- which we weren't able to do, because it cost so much money -- we didn't have a very good picture of what these painters' blood lead levels were like, because of the variability of their tasks, the fact that you have recall problems about what they did do on pre-1978 housing.

So I think a blood lead study that doesn't do a better job of doing exposure

characterization, doesn't really tell you a whole lot.

MR. REINHART: We had a couple of choices here. I certainly agree with you. There's no question about that. One thing you said was that it would be very costly. And it would have been. So we decided to go for the numbers here, and to just look at the overall population using NHANES Phase 2 at that point. We tried to get just a rough idea about what these blood lead levels looked like in reference to what you might expect from Philadelphia or St. Louis.

It was a back of the envelope type of analysis, but we felt pretty confident we were not seeing a lot of evidence for exposure. Now we're going to look at this again, so I'll be coming back to it.

MR. LIVINGSTON: In one case you chose drywall workers getting high exposures, and drywall doesn't have lead in it. In another case in the general conclusion, the suggestion that demolition contractors don't have enormously higher levels than -- demolition workers -- is such a dangerous thing to put out into the world.

We are absolutely positive that people doing demolition work in old buildings have extraordinary high blood levels. I've seen it in my own crews over and over and over again, their levels shooting up. There is something fundamentally wrong with a study that doesn't reflect that enormous dosage of demolition workers in renovating old buildings.

MR. REINHART: Let's move on. It's interesting. I'm reporting what we found in this particular study, and the way we found it. We will discuss that or

something like that shortly.

Now the first conclusion was that we aren't seeing a lot of evidence that these people are being exposed to very high levels of lead; at least we aren't seeing high blood lead levels. I think one person was about 40 out of 581; 7 were above 20 micrograms.

On the other hand, when you look at the geometric mean of the blood lead levels by worker category, we do find statistically significant differences between categories, with floor layers, floor replacement people having very low levels, a geometric mean of 2.8, whereas drywall workers -- and I think the reason that drywall workers have high levels is because they are probably doing a lot of replacement work, probably a lot of sanding of old walls; painters, 5.9; window replacement, 5.8.

So there is an indication here that what people engage in seems to be associated with the blood lead level.

MS. WATFORD: And remember the categories, that's how the people who filled out the questionnaire described themselves, they labeled themselves.

MR. REINHART: So to conclude the first two phases, we are seeing from the person air monitor data, Phase 1, that worker inhalation does seem to be a problem sometimes. They may exceed the OSHA PEL in things like sanding, cutting with skill saw. On the other hand, from the blood lead measurements of Phase 2, we aren't seeing a serious exposure problem, at least in this particular sample.

At this point, I think we started to really ask ourselves questions about

occupants. Right now, all we have is the settled dust. We don't know about particle size. We don't know about efficiency of alternative clean up techniques. So we really felt that we needed to get some information about occupant exposure. This was a fairly acute need at this point, especially on young children.

A lot of states have registries, but very few states have comprehensive registries. We discovered at this time that Wisconsin did indeed retain all blood monitoring data, whether the child had a high level or a low level. This afforded us the opportunity to conduct a retrospective study, and that's exactly what we did.

It was a very large scale study. We conducted interviews with 3,654 parents of children who had had their blood leads measured. We knew what the blood lead measurement was. We asked questions if any renovation and remodeling work had been done in the last year; who did it; where it was done; specific activities that were used. So the first objective was to see if there was an association between renovation and remodeling in general.

The second objective was to determine if any specific renovation and remodeling activities were especially problematic, were clearly associated with elevated blood lead levels in children.

Now again, this was a study that was sort of backwards. We already had the blood lead. We were then interested in comparing children with elevated blood lead, and those that don't have elevated blood lead. Theoretically, the incidence of renovation, or specific renovation activities might be different in these two groups.

We used what we call logistic regression. We tried a lot of different things, but logistic regression was our primary statistical tool. In this particular case, we are really interested in looking at the relationship between this dichotomous variable, that is, elevated blood lead, yes or no, and a whole host of other variables.

Again, we collected social and economic information. We asked about family habits, eating habits, education of parents, income, et cetera.

We created what we call a baseline model. That is, to have the most powerful ability to discriminate or distinguish whether these renovation activities might have an impact, it was to our advantage to use as much information as possible, to incorporate as many other factors as possible.

What this includes is a number of other factors that we found to be worthwhile in doing this analysis. For example, if an adult in the household had already been found to have an elevated blood lead level, that turned out to be important. Indeed, it increased the odds of a child having an elevated blood lead by about 32 percent, as you see up at the top here.

Education was important, but we already pretty much knew this. We have seen this before.

Home age was important. I think 1950 was the breaking point here. For children in older homes, they were twice as likely to have an elevated blood lead level as children in newer homes.

Income. Medical assistance was interesting. You'll notice that the no and

yes are reversed here. That is, it turns out the medical assistance group was less likely to have an elevated blood lead. That's a little puzzling to people, but when you realize that this group, these Medicaid children had to have to their blood lead checked, whereas the others didn't, so therefore there was some other reason, some factor. Some one must have thought that they needed to be checked. So I think that helps explain why we're finding higher risk associated with that group.

Peeling paint is an indicator, type of residence. These are not surprising. It's pretty much consistent with other studies.

We looked at a lot of different kinds of odds ratios. The ratio of two odds, the odds of having an elevated blood lead in one group, and having an elevated blood lead in another group. So for example, if any renovation and remodeling activity was done at all, the odds ratio in this case is 1.301 or approximately a 31 percent greater chance of a child in this home having an elevated blood lead. The denominator would be no renovation and remodeling work being done in this particular case.

To come down, if any inside or outside painting was done, about a 32 percent of an elevated blood lead; surface preparation, 43 percent additional. I want to emphasize these are what we call unconditional odds. These are looking at individual things, using the baseline model. It's perhaps not always the most appropriate analysis, but I'll tell you, I don't want to get into too much detail right now. I think it gives you the flavor of what we found here.

If you come down to open flame torch or heat gun use, you are seeing the

odds are huge. Now I want to emphasize there were very, very few children that fell into these categories. You can look at the confidence intervals over here, and you can get an idea. Then an odds ratio of 4.883, but the confidence interval is 1.4 to 16.7. That's a rather large confidence interval. The reason is there were only about 6 or 7 kids.

MR. FREEDMAN: Dan, for those of us who are statistically challenged, could you explain confidence interval?

MR. REINHART: In this particular case we're saying we have this odds ratio which gives us an idea of how much more likely the kids in the numerator are versus the kids in the denominator of this fraction. Then we come up with a number like 4.88. It gives us an idea of how much more likely the kids that had open flame torch work done are than kids that didn't have that done.

Then the confidence interval gives us an idea of about how confident we are about that number. We're saying we're 95 percent sure that it fell between 1.42 and 16.75. That's a huge interval. The reason that we're getting such a huge interval is there are very few kids that make up that estimate. That may not be the best explanation. I can probably spend some more time later.

MR. FREEDMAN: Now I know why I never took statistics.

MR. LIVINGSTON: I can't see the chart from here. Do you have two different lines, one for burning and one for heat gun, or are they both on the same line?

MR. REINHART: We have two different lines here, open flame torch and heat gun. They both have the highest odds ratios. These are things that seem to be

especially problematic.

I want to emphasize something here. In renovation remodeling a lot of things are associated. It may not be that heat gun use or open flame torch use is dangerous. It may be that the jobs that feel like they need to be used for are the source of the hazard. I think that's unlikely, but we cannot discriminate or distinguish that. So it might be that when you to use an open flame torch on a job, you are looking at a serious, problematic job.

MS. VALLS: On the first chart that you showed before this one, where you listed the high risk and the low risk group. At the bottom you had type of residence. In the second column you have single, mobile, apartments less than four units. In the third column you apartments more than five units, single, single, single. What does the single on both sides mean?

MR. REINHART: We're comparing, in this particular case, a duplex with a single residence. What it is saying in this particular case is that children living in a duplex have an 86 percent greater probability of an elevated blood lead than children living in a single. There are some funny things here.

MS. TOHN: As I look down this chart, and I look at the activities, the variables, the vast majority of it seems to be related to paint as an activity. Clearly, your study and the potential scope of the rule is much broader than paint. Were there other things considered that just didn't even make this cut off for odds ratio, or did you not ask questions about them?

MR. REINHART: There were some additional things, but don't ask me right now to name what they were.

MS. TOHN: But if they were asked, they clearly weren't more important than the things that are up here, or would you have put them up?

MR. REINHART: Yes, these were the things that I think we found to be of greatest interest.

MS. TOHN: So of the things that you considered, the things that were of greatest interest seemed to all cluster sort of related to surface preparation about repainting, which was different types of surface preparation?

MR. REINHART: Yes, no question about that. I think that preparation for painting, or sanding painted surfaces clearly -- in virtually every one of our cases, we find that to be a problem. It's something that I was going to state at the conclusion in five minutes.

One of the more interesting things was who did the work. That turns out to be --

MR. FREEDMAN: Dan?

MR. REINHART: Yes?

MR. FREEDMAN: I'm sorry, one more question. Was there any attempt made to determine whether in the cases where this work was being done, and the data shows higher levels, whether there were any controls in terms of exposure to children? Is this just a matter of children running free through the house while the work is being

done?

MR. REINHART: There were attempts, but you have to remember something, we wanted to minimize the intrusiveness. This was a telephone interview, and we did ask about containment or isolation techniques.

MR. FREEDMAN: Keeping kids out of the area?

MR. REINHART: Yes. I cannot tell you specifically what the questions were, but we had a question about the isolation of the work area.

MR. RILOTA: My question is on that chart, it looks like hand sanding or scraping had pretty much the same odds ratios as power sanding and sand blasting. Did you find that surprising?

MR. REINHART: You have to be careful looking at this stuff, because this is real world data. It is not controlled in any way. This is epidemiologic data. It doesn't surprise me that every odds ratio doesn't conform to my expectations, or what we find in other studies. I think you have to look at these in a very general sense.

Right, some things are puzzling. I'll show you some other things that are puzzling, that don't seem to conform to our expectations.

MR. RILOTA: Do you know of any confounders there?

MR. REINHART: Well, you have to remember, we don't know about the existence of lead in these houses. This is a minimally intrusive study. So there is a lot of uncertainty, lots of sources of uncertainty that are going to create some problems with the analysis.

MR. MACALUSO: Just a question about whether through the phone surveys, whether people had children running around the work area. In my experience, I have never seen children running around a work area where you have workers, and then you have the people that live there, the children. It's very rare that the parents are going to let the children, or the workers are going to want the children there, whether it is because of lead or just because of construction hazards.

MR. REINHART: The questions that we asked had to do with containment, and the extent of the job. How many rooms where involved, and what was done in each room, and that kind of thing.

Any other questions.

I just want to point out some of the tricky things about this. Who did the work? Now if a relative or friend who is not in the household did the work, we see the odds ratio is 2.23, in other words, 123 percent increase in the probability of encountering an elevated blood lead in this situation.

On the other hand -- and this is very puzzling -- if someone else living in the household did the work, you will notice this yes and no are reversed. It turns out that it actually reduced the risk by a huge amount too in this particular case. The risk was reduced to one-third, and we don't know why this is the case. My first hypothesis was that when another adult living in the household does the work, maybe they are in a very minimal, non-intrusive job.

By the way, we found something like 67 percent of the people interviewed

had had some kind of renovation done in the last year. So we cast a very broad net here. We went back and we tried to analyze this to see if there was any other indication of these adults living in the house or doing the work. We wanted to see if we could find any indication of them doing a sort of less intrusive or extensive job, and we couldn't find evidence of that. That's one of the puzzling things.

As you can see, when the people live in the house, when the work is done, there is a significant increase in the odds of an elevated blood lead. The more rooms that are involved, the more the chance of an elevated blood lead. If the work is done in the kitchen.

I think you can't be too specific on this right now. I think you have to get a feeling. What we are seeing here is that again, things that involve disruption of paint seem to be consistently jumping out at us.

I think I have said pretty much everything on this summary already. If any renovation and remodeling work is done, we are seeing an increase of about 31 percent in elevated blood leads.

There are some specific renovation and remodeling activities that are associated with an increased risk. These include: open flame torch, heat gun, and chemical stripping, and sanding of surfaces. As I said, these are pretty much consistent with what we have found in the other studies.

The final study -- I know I'm running overtime here -- this is Phase 4. One of the criticisms of Phase 2 was that we did not specify our search. We looked at

renovation professionals in general. That if in fact we had tried to find people who work extensively and specifically in older homes, we might find that there was an exposure problem among these professionals.

So we set out to try to locate these people. The first thing we found is that a lot of the people that advertise like old home specialists or historic home specialists were not really doing that. They were just trying to capture that segment of the market, and a lot of them say that's about 5 or 10 percent of my work, but I figure I can probably get it now and then, and we make a little more money doing it.

Nevertheless, that didn't deter us. We put ads in newspapers in Charleston, Savannah, and Baltimore, three cities where there was a lot of renovation of historic homes. We walked around the cities in the historic sections, looking for work that was being done, and pretty much tried to duplicate Phase 2. We got people to volunteer to give us blood samples, and to fill out pretty much the same questionnaire that we used in Phase 2, to try to see if we could find a relationship between what people did, and elevated blood lead levels.

A couple of things. We were very careful to screen people. We wanted to make sure they were working extensively in old homes. While doing this, we decided to include homeowners, because it was a very comfortable and convenient way to insure that a person indeed was working extensively in an old home. If the person owned the home and was spending at least 20 hours a week renovating his old home, we felt like that was a pretty good surrogate for a professional working in old homes. So we

included 151 professionals, 82 homeowners. Again, we got blood and questionnaire data from each one.

These histograms may not look that different than what you saw before, but they are. The top histogram is the blood lead level of workers. It's a log graph. What we are seeing now is it's not quite normal shaped. We're finding that in these two cases, a disproportionate portion of the distribution falls at the high end. About 20 percent of each one of these distributions has blood leads above 10.

This does indeed provide an indication -- this is not the general population. Something is happening here. I think I even gave you a little graph that gives you the percentage if it falls about 20 or 15, and 20 and 20.

The conclusion here is that homeowners have a geometric mean that is below workers, but in both cases there is a sizable proportion of this sample that falls in the high range. So there is an indication here that some of these people are being exposed probably by what they are doing.

Again, this is comparable to the Phase 2 graph, again, generally consistent with Phase 2.

From the questionnaire we concluded that both homeowners and workers were engaged in a wide variety of activities. We were a little concerned that we might not be getting the range of activities that we had seen before, especially from homeowners, but that was not confirmed by the questionnaire information.

Two-thirds of the workers had hobbies with potential lead exposure --

things like making bullets or sinkers. And we were surprised by how many of them engaged in that activity. Only about one-third of homeowners had similar activities.

Over 75 percent of workers and homeowners reported using dry sanding or scraping for paint removal. One-third had used chemical strippers or torches or heat guns.

The interesting thing is that when you look at everything, the one thing that jumps out, the one thing that we find that is statistically significant is that paint removal is a problem. Paint removal is associated with elevated blood lead. The more the people claim they engage in this, the higher the elevations.

MR. NIX: The chart that shows the occurrence of elevated blood lead levels, comparing homeowners and workers, do you have a column that complements these that shows the children in those homes?

MR. REINHART: No, we don't. That would have been ideal. Unfortunately, to try and do that would have required OMB approval, and would have taken us about six months. We only had OMB approval for this.

MR. NIX: What I'm wondering is the workers, whether they are working in historic quarters or they are working in other homes, whether they are professionals or homeowners, seem to fall into a certain range of blood lead below 10. Does that mean that it's not the workers that are at risk in this, but the children?

MR. REINHART: I might as well summarize all four phases right now. In general, worker exposure does not appear to as serious a problem -- even close to as

serious a problem as occupant exposure. Children clearly represent the population of greatest concern here.

Now there is some evidence that some workers are being exposed. I'm not sure if that is because they are working in especially contaminated situations, or they are engaging in especially dangerous or hazardous activities for long periods, but we aren't seeing the kind of elevated blood lead among workers in general that we are seeing in children. I think it's going to be children that drive any rule, if we have one.

MR. RILOTA: Can I ask you to go back to two overheads back that had the conclusions for Phase 3? Is it possible to do that?

MR. REINHART: Sure.

MR. RILOTA: You top bullet there, it says general residents renovation and remodeling is associated with -- the word here is general. In light of what Ellen had asked, could you give us a little bit more insight of using the word "general" residential renovation and remodeling versus using terminology like renovation and remodeling that disturbs surface areas, or associated painting activities? How did you come up with that terminology?

MR. REINHART: We're getting down to semantics now, and I think "general" was something that I pulled quickly out of the air. We might use another term. One question was, was any renovation work done in the last year. If that was answered positively, then we find this increase in elevated blood lead.

MR. RILOTA: Would you include activities such as carpet removal?

MR. REINHART: Yes. But you are right, a lot of the activities that might be included in that, may not be a problem.

MR. NOLAN: Two points I'd like to make. First off, these levels seem low to me. Since the activation for an adult is 40 and for a child is 10, and these range, most of them from 4-8, I sort of don't understand why we are doing all of this if the levels are in fact lower than the activation levels.

The second point I make, is there any kind of study that indicates how these levels have changed over the last 20 years since lead has been removed from paint?

MR. REINHART: Kevin, I want to make sure that I know what you are referring to when you "the levels."

MR. NOLAN: In the Phase 4 study it says blood lead concentration of homeowners. None of these people here are over 40.

MR. REINHART: You have to realize those are geometric means, so therefore that doesn't take into consideration the range. If you look at the percentage of people above 25 -- I've forgotten what it is. It might 4 percent or something like that, of homeowners. That does suggest that it could be a problem.

So again, we are not looking at a huge sample. We have a sample of less than 300 people. So I'm not trying to say that we have a crisis here among workers or homeowners, but there is a suggestion that there may be a serious exposure problem occasionally.

MR. KELLY: I comments and questions are in two parts. I guess my

question relates to the fact that your studies in the old and historic homes revealed a higher worker and homeowner exposure to lead than in the study that you did previously that it didn't involve older homes. The conclusion that I'm drawing is that there are some factors other than the kinds of work activities that are being performed that influence exposure, some factors beyond the specific activities.

I'm wondering if you had any chance to hypothesize what those factors might be? I know that in our studies in Massachusetts we have been considering not only the kind of activity, but also the condition of maintenance in the unit where the work is being performed. So I'd like you to answer that.

But the other comment that I had was related to the statistical significance of some of these data. I know that there is a perception in your Phase 2 study that there is no hazard to workers posed by some of these activities, but in my statistical ignorance I would say that if 500-some odd children, possibly none of them would have come up with elevated blood leads.

Which might invite the conclusion that there is no childhood lead poisoning problem in this country, which is obviously not the case. So I'm wondering if looking at 580 workers would invite a parallel conclusion that there is problem of lead exposure among workers, when in fact there is.

MR. REINHART: Well, I think I'd like to answer your second question first. I think you have pretty much pointed in the direction of it. The conclusion from Phase 2 is that there is not a widespread and serious problem of exposure to workers.

But on the other hand, and this is the reason we went and did Phase 4, we felt like if we were more careful in specifying a subgroup, we might be able to find a problem. I think that we have done that, and we are seeing somewhat of a problem. I don't see it as being anywhere as serious as it is for the children.

Nevertheless, what you are saying is true, but I think the first thing we wanted to do was to see if renovation workers in general had problematically high blood lead levels. The answer to that is there wasn't a lot of evidence of it. When you look at those people that work in old homes, and probably because of that, engage in certain activities.

From my own experience, I used to work in old homes. I did a lot of dry paint removal. It would be very hard for anyone to convince me not to do that. I don't think the people that owned the homes would have wanted me to use anything else. Unless you do it, I don't think you understand.

So getting to your first question, is it where they are working, or is it what they are doing? It's a combination. I'm only conjecturing that.

MR. FREEDMAN: Have you been tested?

MR. REINHART: Yes, I have 3.1 micrograms per deciliter. It was a long time ago, and I never used any protection.

MR. HARRINGTON: I just want to point out that despite the problems with exposure characterization, your findings are very similar to our findings with painters in California. We had 132 painters in our intervention project, and we did blood

sampling at different points in time. The last point in time we had a far fewer number, but we basically had about 130 painters.

The geometric mean was about 9 microgram per deciliter. When we conclude from that is it's three times higher than the U.S. background population, NHANES. On the other hand, we didn't know what we were going to see, so in some ways it was a big relief to the painters to find out that their blood leads weren't hovering about 40, as an example.

Clearly, they are not the blood levels that you have seen in an industrial painter for example, but in terms of residential commercial painting, they were elevated.

MR. REINHART: If that data is available, I would enjoy comparing to what we have.

MS. BURGIO: Dan, I think of all the studies that you conducted, it appears that Phase 3 was the weakest of your conclusions. You didn't have as much confidence, because it was telephone interviews, there were a lot of other factors, you never even saw the residences. It seems like we're going in the way the workers are not exposed, and that may not be the problem that you want to focus on, but the children are. I'm just concerned because this study on the children was probably the weakest one.

MR. REINHART: I don't know if I would agree with that. There were a lot of problems with it, but I would like to state that CDC liked our idea. They are in the process right now, and I'm sorry Dorrie Riceman(?) isn't here to speak on this, but they have used our design and our questionnaire and conducted a parallel study in New York

City. Eileen Franco is interested in extending that study to other counties in New York state.

MS. BURGIO: But do we know like dust settled samples or anything like that to target which activities were the most danger? And then even the ones that were the most dangerous, there were so few. You said five or six that were exposed. I'm not arguing that those are not hazardous activities, but it just seems like that is the weakest evidence to base this entire regulation on.

MR. REINHART: We had a very large sample. We could have gone for a much smaller sample and collected more information. In this particular case we opted for as large a sample as we could. To have that level of intrusiveness, to be able to really go out into people's homes would have probably compromised some of our other objectives.

MS. BURGIO: I guess it's just unfortunate, like in the Phase 1, where you collected the dust samples, that you weren't monitoring the residents at that point.

MR. REINHART: Right, but if we were to do that, we wouldn't have had access to the homes, because the renovators never would have participated. We know some were real jobs. But if we were to go ahead and monitor the residents, no contractor would have participated. We discovered this very quickly.

MR. HENSHALL: David mentioned that he sees pretty good correlation between our study and David's study. Are there other studies out there? How good is the correlation between what you have been finding, and other studies?

MR. REINHART: Specifically, if I compare what we've done with what NIOSH has done, I think they are very consistent. I think Aaron feels the same way. Looking at settled dust levels. Looking at blood lead levels, and also inhalation exposure, very much the same findings, the same conclusions.

MR. CURRAN: You have 31 percent up there. How was that percentage arrived at?

MR. REINHART: This is what we call an odds ratio. It is the increase in the risk or the odds of finding an elevated blood lead child in a home where renovation was done compared to a home where renovation was not conducted.

MR. CURRAN: So it's based on a statistical --

MR. REINHART: This is based on the incidence of a positive response in our sample.

MR. CURRAN: But not an actual measurement of elevated blood lead?

MR. REINHART: Well, it is. We knew which children had elevated blood lead. We knew which didn't when we spoke with their parents about renovation being done. This is a little crazy, because it is backwards. We're starting with the elevated and non-elevated, and then we're finding out about the incidence of renovation and remodeling. This reflects the association.

MR. CURRAN: So the 3,600 children approximately, the parents that you called were starting out with elevated blood lead?

MR. REINHART: No, unfortunately only 285 of them had the elevated

blood lead. So that's because all that we got -- we tried to reach the family or guardian or parents of every child that had an elevated blood lead. We were only able to reach 285 of them out of maybe about 400. We samples the rest, the ones with lower blood leads.

MS. TOHN: I wanted to point out that these results actually do track really well with the NIOSH report to Congress on worker blood lead levels. One thing I think that came out in the NIOSH data to me that I don't think in the study design, and I wondered if you would agree, is that while the activity that was done seems to be the most important thing in terms of generating the settle dust lead levels, the measured paint lead level when they were looking at worker exposure and settled dust lead levels.

It's striking to see that even in very high paint lead concentrations, greater than 20, really heavy, heavy lead, some activities produce very low lead exposures, whereas lower lead loads, very small amounts of lead paint if you are doing a very dangerous thing, can make an enormous difference. Was there any measurement of paint lead that would sort of lead to similar conclusions, that what you do is probably more important than the amount of lead in the paint?

MR. REINHART: That's an interesting question. We verified before we started Phase 1, that there was indeed lead in paint, and it was above 2 milligrams per square inch, but we did not attempt to compare the levels. We did actually take a look at it. We didn't find much relationship.

One of the things I think David Harrington might have something to say about is the National Association of Home Builders in a couple of situations tried to

relate concentrations of lead in paint to lead in debris, in dust that fell, and found that there wasn't a very clear relationship. I think it was a very limited study that NAHB did.

I think California also in one study created an equation where the amount of lead produced could be predicted by looking at concentration of lead and some other factors, and found that while it was statistically significant, it was not of great practical value in predicting the amount of lead produced.

MS. TOHN: So just to make sure I understand where you are coming from, so you would not necessarily disagree with what NIOSH was finding in terms that the activity was probably a greater predictor of the dust lead created versus the lead content?

MR. REINHART: That would be my general conclusion.

MR. LIVINGSTON: What I think skewed all these studies enormously is the public knows that both the workers and the children who are poisoned are living in very low communities, houses where there is deferred maintenance, and where there are no work practices, mostly unlicensed. These are not part of national organizations. Certainly they are not union workers. That's where most of the poisoning is happening, both workers and children.

The studies of course gravitate to the paths of least resistance, which tend to be the people who are responsible, and feel pretty good about what they are doing, and their behavior even improves as soon as you start talking to them. So you wind up the studying the people least at risk, and therefore suggesting that people enormously at risk

are not so at risk. I think it's very damaging.

MR. REINHART: Dennis, I would take issue with you on -- I certainly agree with your conclusion. I think that we suspect what you are saying is true. In Phase 2 we went to what I would have characterized as extraordinary lengths to try to find the underground people, the people that are unlicensed, unaffiliated, the back of your pick-up truck type people.

We encouraged them. We offered financial renumeration. It was like $75 to get these people in. I think we got a lot of them. I didn't show you early analysis we did. We couldn't find that those people were exposed to higher levels than any other grouping.

MS. BURGIO: Your conclusion there on increase of elevated blood levels, 31 percent. You mean the increased incidence of blood lead level, not that their blood lead level was increased by 31 percent.

MR. REINHART: Yes, thank you, Patti.

MR. KELLY: I really think Dennis points out an important though, and that is that the condition of the units where the work is taking place ought not to be ignored. I think that in some of those units, our activities aside, sweeping the floor could be a dangerous activity if it hadn't been done in the past six months.

MR. REINHART: I think I have said pretty much everything. The one thing that keeps coming up, the one finding from every study is that sanding paint, preparing for paint and painting is associated with higher blood lead levels. We found

that in Phases 2, 3, and 4. In Phase 1 we also see that we're getting a lot of lead deposited on the floor from this activity.

I think that's about it.

MR. CASEY: Thank you.

[Brief recess.]

MR. CASEY: There was some talk about applicability. We wanted to get your input on applicability. You all should have had sent out to you in the mail, and I hope you had an opportunity to read the background on the strawman options. I'm going to ask Mike to take a minute or two and kind of walk through what the thinking was behind these. We are going to use these options and the issues that are brought up here to have a discussion that will take us up until lunch, and then for 45 minutes or so when we come back from lunch.

Agenda Item: Overview Presentation of "Strawman" Options About Applicability of the Proposed Rule

MR. WILSON: As we said, what we were going to be talking about this morning is applicability of the regulation, the development of the regulation. When you are talking about applicability in renovation, you are talking about a very large number of renovations activities that occur annually. We are talking about developing a regulation that could influence the type of work practice standards that are used, training for these individuals, as well as accreditation, in certain basic training programs for individuals themselves.

So we need to be very clear about who the rule will apply to. So what we have done is thrown together a couple of options that I'm going to brief talk about. I want to emphasize that these are just two options that we have discussed internally at the agency, and we welcome any further options that you may have for us to discuss today. That's why we are here.

As the basis of discussion, we have two options. The first one is to discuss the use of a minimum surface area or a diminimous area for the regulations, say as in our 406(b) rulemaking, which requires information be distributed to folks that are having renovations done. They are using now a diminimous square feet of surface area.

We want to talk about whether or not a diminimous area such as that would be practical for this regulation or useful for this regulation.

Second, we talked about the age of housing. In general, when you are looking at our regulations and other lead-based paint regulations, you see the use of 1978, which was when lead was banned to be used in paint. You see that frequently used.

But we also have information, and I believe we passed around a table, which we will discuss further, which there is evidence that the use of lead-based paint was reduced greatly in and around the 1950s, about that time period. So the second discussion what we want to have is whether or not this regulation needs to target pre-1978 housing or perhaps we could come up with a different date, such as 1960, and target regulations to activities involving in pre-1960 housing.

Then basically we have the two options. Then of course you can combine the options together. You can have a minimum surface area diminimous on pre-1978 or pre-1960 housing.

The chart you see in the document that is before you has options 1 and 2 and then A and B for each. So like I said, that's going to be a start of our discussion today, and in no way is that to prevent you from bringing other options to the table for discussion.

With that, I'll go ahead and turn it over.

MR. CASEY: Here's the way I would like to structure our discussion that will take us into the two o'clock in the afternoon. For the rest of the morning, we will talk about what basically comes down to be one version of the two options. Should there be a minimum surface area below which this wouldn't apply. After lunch we will pick up the should it apply to everything before 1960 or 1978 or pick another date. So we won't get to that one, probably just an A versus B in your afternoon discussion.

I just wanted Scott Graves to quickly go over what was handed out. You'll probably have time over lunch to look at it. But real quickly, Scott, if you could kind of walk them through it.

MR. GRAVES: The paper I handed out, there is something on each side, and it is a comparison of pre- and post-1960 housing stock. If you didn't get a copy, raise your hand.

This information was, as you can see, taken from HUD's comprehensive

and workable plan for the abatement of lead-based paint in privately owned housing. Some of the values as you see have a little tilde symbol in front of them. Those are not numbers actually printed in that document, but they were calculated by EPA from that document. So they are listed here, and you will be able to see those.

If you turn the paper over to page two, you will see a smaller table. This is the one that has the most potential for confusion. What you will see is the number of units of housing stock with different lead-based paint concentrations. These are sort of subdivided in here. So you've got the greater than 0.7 micrograms per square centimeter is the total number of housing stock. Then each of the numbers in the rows below that is sort of a subset of those. So you do not add these numbers up. That's the main point on those.

We're going to get to this discussion this afternoon after lunch, as Sean mentioned. So you will have time to take a look at this, and if you want to kind of discuss or ask questions, we'll be available; folks from EPA will be available to help clarify.

Thanks.

MR. LEVITT: Just a clarification. Is that micrograms or milligrams for the concentrations up there?

MR. GRAVES: Milligrams. Did I say micrograms? I'm sorry.

MR. FREEDMAN: [Remarks off mike.]

PARTICIPANT: [Remarks off mike.]

MR. FREEDMAN: There is a cut off here of 0.7 what I take to be micrograms. I don't remember seeing that number. I'm just trying to remember if that's a significant threshold for concentration of lead.

PARTICIPANT: [Remarks off mike.]

MR. PASTER: Just a matter of clarification, in the bulk document that was sent out, on page 4 in the preamble one it says residences built before 1978. There is a definition of lead paint -- or there is a definition that suggests that it's a go-no go. There are no numbers associated. It simply says that paint is not lead-based.

Then in the supporting document we were looking at options, it clearly calls out the federal level of 1. Now we're also dealing with levels. So it's not clear to me why the preamble refers only to something that is or is not lead-based.

MR. HENSHALL: For all intents and purposes, lead-based paint is defined as greater than 1 milligrams per square centimeter. That's the federal definition. That's the definition we'll be using. So when it says lead-based paint, it is greater than 1. The chart showed 0.7, because that was the Baltimore standard, and there was data on that in the data set.

MR. PASTER: I understand that. You should go back then --

MR. HENSHALL: So when we used the word "lead-based" paint throughout, whether it be for a HUD document or an EPA document, we are always referring to paint with a lead content greater than 1 milligram per square centimeter.

MS. AINELIA: My question is even at equal to or greater than 1?

MR. HENSHALL: Yes.

MR. CASEY: One last thing before we get into our discussion. We've had an increase by about 20 percent since we introduced ourselves this morning, so if we could do a lightening round of introducing ourselves, I think that would help our discussion.

[Introductions were made.]

Agenda Item: Discussion of Advantages and Disadvantages of the Two Applicability "Strawman" Options

MR. CASEY: Let me put up the question and see what people have to say. Should there be a minimum surface area below which, smaller than which the rule would not apply? Why or why not? If yes, how small should it be? Should there be a minimum?

MS. TOHN: I guess I'm going to answer the question by saying that I think the question is a slightly odd question. I'm going to say what I think is the right answer by saying you've got the wrong question first relating to this. Which is, look, as Dennis said before kids really get poisoned in renovation settings. Let's not forget it. It's not all distressed housing. There is lots of anecdotal data with children getting poisoned in renovation setting. In Vermont, 13 percent of their poisoning cases are due to renovation.

It's the most wrenching poisons we have, because they are entirely preventable. It's an information thing. It's not necessarily that it's housing that isn't in as

good shape as some of the communities. We're all used to dealing with the higher risk communities where we have a resource problem. This is an information problem and a behavior change problem.

Lastly, let's answer this question and say this rule will never be enforced. I don't know Dean, what you think about this, but as we think about a rule, let's not kid ourselves in the slightest bit that we will have a massive enforcement effort.

So whatever we decide to come up with, has got to be sort of self-enforcing. It better target the cases where we think kids are really getting poisoned. If we do anything else, we are fooling ourselves. We can feel good as we walk out of this room inside the Beltway, and have done nothing to protect these kids who are getting poisoned.

So what I think is, this is the wrong question. I think you want behavior change in the activities that are causing the greatest harm. What Dan just said in his presentation, and most people nodded their head is the thing that is the riskiest doesn't have to do with surface area, it has to do with activity.

The activity that is the most harmful when you look at all the odds ratios, when you look at the worker exposure data, when you look at the settled dust data, come on guys, you don't have to be a brain surgeon here, it's certain surface preparations for repainting. This much with a Makina(?) palm sander blasting like this and a little kid being nearby is harmful. Ten square feet using a little saw going like this, I don't care.

So to me, the surface area is not the most important thing. What you have

to ask is what is the activity that is the most harmful. That to me, is mostly not paint removal. Let's not use that term. It's not paint removal. It's a bunch of preparation of painted surfaced that can cause a lot of dust, and I would say demolition is the other big one that just doesn't leap out from some of the data.

So I would say, should there be a minimum surface area? No, you have asked the wrong question. There should be targeted -- we should worry about certain activities, and whatever we come up with better be self-enforcing.

MS. BURGIO: I agree. I think the diminimous surface area is ridiculous. It's unenforceable. When I change my light switch plate, I might come under the rule if I do three in one hour. So it's unenforceable. Again, I think we should concentrate on the activity.

I feel similarly about cut off dates. Try to target the greatest exposures or incident of poisoning of children rather than thresholds of dates and surface areas.

MR. FARR: You are kind of getting answers you weren't looking for. I agree it's the wrong question. First of all, if you are talking about a rule which has to do with required training or certification or anything, it's really irrelevant, because contractors don't say I will only work on pre-1960 housing or post-1960. If they just don't do that -- at the contractors here can comment on that, but that would seem certainly clear to me.

Similarly, they don't say, I will never work on a house that has more than two square feet. So if you are talking about certification and training, it's truly irrelevant.

So what you must talking about is any kind of a regulation or a guideline or education program or whatever word one comes up with that has to do with under what circumstances should what safe practices be carried out. We should limit ourselves on this part of the discussion to that issue, because that's the only thing it could pertain to in my view.

If we focus on that, I tend to agree with Ellen that it is what you do more than how large an area do you do it in. If you were going to have an area, I would have it something like two square feet per room rather than two square feet per surface, but I don't think I would base a regulation on that at all.

MR. NOLAN: I would agree with what Ellen and Nick and Patti just said. Two square feet is pretty irrelevant. We talked about this before. Two square feet could be little bitty paint chips adding up to two square feet. Or could it be two square feet which would occupy a quarter of a door? Is the lead paint already encapsulated or covered with other coats of paint? So the two square feet, as the 20 square feet for exterior, has really no relevance.

MR. BULLIS: I also agree, and was going to point out the issue of how do you measure this two square feet? Is it an accumulation of the areas, the spots that are deteriorated, that are being prepared with the surface preparations? Or is it just a simply rectangular measurement based on that component, and then anything within there that is being prepared? It is a very difficult thing to enforce that, I can see that.

Also, the complexity of it all, the amount of lead that is in the paint, the

condition, the work practices that are involved. I think we shouldn't be going towards specifying a standard, as much as more of a performance based standard. I think that is the problem.

For example, Dennis brought me out about eight years ago to look at a house where he had cleaning crew in there. They had the bunny(?) suits, and they did all these things, and he was very proud to show me how they had cleaned the paint chips out of this window, some very minimum treatment.

I said that's great, Dennis. Let me just look at that window. I just shook it a little bit and some paint chips fall out. I put my hand on the back and wiped it across and it was raining paint chips.

MR. LIVINGSTON: I remember that window.

MR. BULLIS: So we have to also bring in that whole condition of the house issue, and the housing and the environment that we're starting with to begin with.

But if I have to answer the question I'll say there is also a pragmatic part where maybe we do need at least some minimal thing to give contractors an out so we do not put all the bureaucracy and red tape and regulatory framework on them when they are doing a very, very minor job.

It's all in the conscientiousness of that worker or supervisor who is performing the work, regardless of the semantics, whether you call it a lead abatement, whatever, if it's just a guy with a truck. If he is thinking about protecting the environment and the people that are going to be in that area, he can use the controls

regardless of the square footage.

The bottom line is it should be three square feet, because that will agree with state law.

MR. FINE: I'm going to come from a little different angle. I agree basically with what everybody is saying. Being a contractor my whole life, and training up to 1,140 contractors now with our grant, there is a basic element that is missing. These guys are going to think about regulating themselves, and they are not going to listen/they are going to listen. They are the guys who are the underground or they are the fellas who are the professionals.

They have to be told that there is an issue. It doesn't make a difference if it is two square feet, 100 square feet. These guys coming to our training are only coming because they were informed by the National Association of Remodeling, the local chapters, or any type of publicity that we have done. Nobody else is telling these guys that there is an issue.

When they go and speak to their customers in June and they have to pass the 406 booklet out, they don't know what to talk about. Most of them are going to talk, and the customer is going to say, well, you're just trying to raise your price up, because Joe Smith is going to come in and say -- who doesn't go to training, and who doesn't care -- because the public is not aware of anything, that there is even an issue.

Our industry is going to be a self-regulated industry, because they are not going to listen to all this unless they hear it from a louder voice. It's the demand side and

the supply side. We are demanding that contractors do certain things, but we're not giving them a hand. We're not telling them about it.

Then they go talk to their customers, and it doesn't make a difference if it's two square feet or ten square feet, you have to tell them that there is an issue.

We have installed in my lifetime, millions and millions of dollars worth of kitchens. I have taken two companies public already in the remodeling business. If I wasn't in this industry now, I would not have known about it. We dealt with customers day in and day out.

We have to focus on what the real issue is. It's getting the word out. All these rules and regulations are great. We have to let the renovation and remodeling community know that there is an issue.

MR. KELLY: It seems there is a lot that I can agree with in what has been said. I do believe there needs to be some distinction between what constitutes a hazard. I think we can all recognize how amounts below a proposed diminimous could be hazardous, and what constitutes a reasonable regulatory threshold based on cost/benefit.

There is some precedent for this kind of threshold being set. In the asbestos business, three square and three linear feet has some credibility as a threshold, and nobody would argue that disturbing amounts of asbestos below that threshold is not hazardous.

I think whatever is done, there ought to be some consistency between the

403 rule, the 406 rule, and this. If two square feet comes to be the recognized threshold in the 403 rule, I think it should be here, and I think there should be some equivalent delineator in the 406 rule as well.

MS. TOHN: I forgot to mention one other comment on two square feet. I talked to a couple of property owners about this two square feet thing. As an advocate I looked at it as a loophole. Someone will always say they are below two square feet. I said, well, I'm worried it's a loophole. They said to me, well, if it's a loophole, maybe you are right, but it's not a very effective one, because as an honest guy I'm always intricate(?) when I'm doing even a unit turnover treatment.

So for me, as an honest guy, there is no relief. For me as an advocate I say it's a loophole, and people will claim to be exempt. And as a data driven, kind of scientific minded person I say it bears very little relationship to true life.

MR. MACALUSO: I'm not sure I'm following. What are you exempt from. I think you have to ask what are -- I'm just curious what are you exempt from? I mean are you exempt from training? You clearly can't be exempt from training, because did you say a company cannot be in business that does only work under some square footage or linear feet, whatever the cut off is?

But I'm not sure what the cut off is, I mean what you are exempting from. You have to have a licensing. Again, it's moot. You're a contractor. You do all kinds of work. You have to be licensed. You have to have a trained work force, no matter what the length.

MR. FINE: It's not true in every state that if you are a contractor, you have to be licensed. In the state of Pennsylvania you don't need a license.

MR. MACALUSO: But my question is what is footage getting you out of? What are you getting away with?

MR. CASEY: Let me ask Mike or Mark if they want to give a general idea on that?

MR. WILSON: I guess the most important thing you need to understand is the entire renovation or remodeling information and regulatory work that we are doing, they are basically two things. The regulatory work, as was described and directed for us to complete by Congress, and then also our outreach component, which is going to be providing information to the public and to contractors.

Now regarding regulation, what we are talking about when we are talking about diminimous is a rule that Congress directed us to basically modify our abatement regulations to include renovation and remodeling. So if you look at our abatement regulations, and picture them being modified to include renovation and remodeling, that would mean accreditation of training programs. That would mean certification of individuals and firms. That would mean the incorporation of specific work practice standards for renovation and remodeling. It also would include provisions for enforcement.

It can include very stringent work practice standards or less stringent work practice standards. That is all to be determined. Is it every worker at a work site that

must be trained and certified? Or it would be somewhat less, maybe a supervisor at a work site. It may be just one individual per firm. These are decisions that will come later, but that's what we are talking about when we are discussing the diminimous.

So it's a difficult discussion because we don't have all of the information before us, but it's an important discussion now that will assist us in preparing that regulatory draft that you're going to look at in February or March that hopefully will include more of this information, and we can have a more comprehensive discussion at that time.

MR. MACALUSO: I'm looking forward to that particular meeting, but as the contractor over there, Neil -- everybody in your company is going to have to be certified. You will be certified as a contractor. I think that's pretty much standard; to do that kind of work, you are going to have to be certified.

Everyone will be trained. I don't anticipate if it's only two square feet, you're going to find people off the street just because you can do it. You're not going to do that. You're going to use your people. So I'm not sure, based on the explanation I just got, where you need to even address two square feet, five square feet, three square feet. It becomes moot. You're going to have to train everybody, and you'll have to be certified.

MR. LIVINGSTON: When it got into training, I passed clean harbors doing work on the Baltimore train station with a six foot gap above their drop cloth blasting paint off with tracking in through the train station. That's what I was going to

call Dean about during lunch.

This is one of the premiere lead abatement companies in the Baltimore area. They are the professionals. This is fantasy; 99 percent of the people working on old houses in lower income communities, doing renovation work aren't going to get this kind of information.

What Neil says is exactly right. If this is not demand driven, it is absolutely guaranteed to fail. There will never be regulatory people watching this. So there must be customers that understand it. The only way customers will understand it is if the explanation is less than 30 seconds long, and it's like this. Lead paint is really bad. Old houses have it. It makes kids and workers sick.

If you burn it, cut it, or scrap it, do demolition work or paint stripping, you're going to poison your workers and the environment, so you better isolate the workers, isolate the environment, clean up really well, and make sure you do some kind of dust test at the end to make sure you cleaned up.

If the rules are any longer than that, and that will take some fine tuning, they are just nonsense. When they get to a page, they become useless. When you start talking about five levels, it turns into Alice in Wonderland. There are two levels, there is okay and there is bad, and you should fix it. If it gets more complicated than that, it's an absolute waste of time, and all it does is it pushes the underground economy further underground, where they become less responsible, because they are fleeing the impossible rules and regulations.

MR. FREEDMAN: I'm not often in the habit of just saying hear, hear, but it's hard to follow Dennis on that point. There have been a lot of people who said things that I was prepared to say, and I would just like to make it clear that this discussion is heading way away from your question, and EPA I hope you are all taking notes on this point.

At best, the question of the diminimous regulation is premature, because as George pointed out, we don't know what the diminimous gets you away from. I can't answer the question of whether I want a diminimous threshold until I know that answer.

My first inclination is, as the other contractors have said, is diminimous is silly. No one is going to make a calculation about whether it's two square, even if EPA could tell us exactly how to build that area.

Dennis is right on point, it's refreshing. I mean there is nothing out there that is going to change behavior unless customers understand what this is all about. Mike Wilson just spoke and said that part of EPA's efforts is going to be outreach to the customers. Well, it's an absolute hallucination -- I'll go beyond fantasy -- it's a hallucination to think that anything is going to have an impact unless customers come to a contractor and say this is what I expect you to do.

That will be the cure for the underground economy, or at least for the violations that may occur from unregulated contractors. I could go on, but I would just be saying more that other have said. So this question doesn't deserve a whole lot more attention, I don't think.

MR. PATCHAN: I want to point out how our members deal with asbestos, where you do have that threshold that you mentioned of three square feet. What they have opted to do in evaluating the job early on is if it looks as if it is major, above the threshold, then they defer on the job, and they turn it over to certified asbestos abatement contractors.

The reason is this -- and it would work with lead paint as well -- there is a thing called insurance that is very, very expensive to cover the homeowner, to cover the workers. My members are not going to go through the process of paying that really, really expensive premium to be covered as an asbestos contractor. My board goes on record, they do not want to be lead abatement contractors.

If it is a Victorian, they are not going to do it. They are not going to get involved in the paint. They turn it over. That's a cost of doing business. They risk losing the job, and they understand that, and they've lost many jobs in asbestos for the very same reason. They won't touch it. The exposure is not worth it to them if they are not fully certified and insured.

MS. BURGIO: Again, with no disrespect, I'd like to invite George back into the room, because you are assuming that all regulations and that all activities will be regulated, that all contractors will have to be trained and certified. This meeting is talking about the proposed renovation and remodeling rules to determine which activities, if any, will be regulated. So don't jump to the conclusion that all contractors will be trained and certified based on these regulations.

We are here to discuss which activities are creating hazards, primarily for children. So again, I want to mirror what Ellen was saying about there will be no enforcement of diminimous rules, even maybe the dating of housing. It would be very difficult to enforce, because contractors that are out there, they will work on any house that they feel is titled or they feel qualified to do.

Again, I agree that it has to be demand driven. As a mother, if you my children come home with elevated blood levels, believe me, I'm going to be looking for contractors that are educated to eradicate the situation from my house, if that's the source of the lead poisoning.

As well as what Bryan was talking about, it can be a self-regulated industry, because of the liability concerns. People will walk away if they think they are going to get sued by doing activities they feel unqualified to do. I have always tried to spin this in the six years that I've been working on this issue to the members, get knowledgeable, because if you don't, you'll be sued. You'll be taken to court. So is that something you want to endeavor? You can go out of business.

I don't think most contractors want to go through that. So I think the incentive is there for contractors to do a good job when given the information, so that they are not at financial risk.

MR. GOLDSTEIN: As a representative of the apartment industry, I just want to point out that not every apartment complex will have a certified person on staff. It is dangerous not to allow an apartment manager or someone like this to go into an

apartment and be able to do some very simple tasks like change out a switch plate. If there is no diminimous area for every single job where you touch a wall, you would have to call in a certified technician. I think that's where this rule can be beneficial to industries like ours.

MR. LIVINGSTON: I agree with what Patti has been saying about this. There is certainly some incentive for contractors to want to keep abreast of these issues. I think now in the contracting environment there is a large understanding of things like asbestos. Someone coming into a home knows about things like that.

I think to just say this isn't going to work because the contractors won't get into it. I think lawsuits and liability issues will drive the need for them to know that. Of course we get to some of the broader questions about enforcement, but I don't think it can be completely on the part of the consumer to always be the one insuring that this happens, and that there are people following this.

I think contractors do play a role, and that there will be an ability to get them to pay attention to these issues, just like I think that has dramatically increased with things like asbestos.

MR. HARRINGTON: I think that one of the issues is that unless you are talking about creating this so-called -- just mainly hear about on the East Coast; no one every talks about this in the West -- about sort of the lead abatement industry. You are really talking about contractors doing what they have always done, whatever trades they are in.

That's where the majority of the work is. I think that the issue is how do these contractors do this work in a lead safe manner, in terms of whether it's window replacement or surface preparation or whether it's remodeling a kitchen. So there needs to be some kind of way for them to determine what they need to invest in down this road.

Do they need to have for example, certified workers? Well, probably only if they have high exposure kinds of situations that they commonly do. On the other hand, unless they get some level of training, they are not going to know about work practices and work methods which will help them reduce exposures for both workers and for building occupants.

So I think it's a given that everybody needs a certain level of training. Whether or not that leads to certification is another issue. Then beyond that, I think there needs to be a certain group of worker, particularly painters, that unless they can get their exposures below certain levels, that require that they be certified, because of the high risk kinds of activities that they do do.

And for contractors, you need to be able to give them a fairly simple approach that helps them over the long run determine how they are going to invest in their crews in terms of this kind of training, and who needs what level of training, what have you. They are not going to walk away from this work. It's not like asbestos -- I'm sorry, but it's not. The work is there. People are going to do the work. They are not going to call in the lead abatement contractor, they are going to do it.

So I think that's what the question is here. It's not the question of two

feet. Granted, two feet will give you certain opt outs, but it is all about what the activity is, what the task is, and that's tough, because the tougher question, because a remodeling company can do so many different things. If they know enough in stages to work properly, they gut first, they clean up, and then they go in and do the new construction. If they don't know how to do that, then they have basically contaminated the whole house when they could have remodeled that kitchen in a different fashion.

So I think unless there is a certain diminimous level of training if you will, then you are not going to see that kind of judgment going on, even among the most conscientious contractors.

MR. KELLY: I would sign-on to what Greg had said earlier, that there are some kinds of activities, that by their basic nature, are kind of self-limiting like installing a switch plate or some other very limited activity, which is distinguished from other kinds of renovation work, which by their nature are more extensive. Therefore, I wonder if there isn't some practical reason for a diminimous threshold for regulation at least?

I do believe as well that consumer demand is the most important vehicle for driving or raising of the standard of lead safety precautions among renovators. In our state we are about to float some regulations. We are going to public hearings with some regulations that will set what amounts to a voluntary training for renovators at this point. At that time, we're going to put up billboards at various places in the state that say higher a lead-safe renovator. If you are renovating, high a lead-safe renovator.

We're going to time this with the 406 rule, and introduce other public information campaigns at that time to try to raise consumer consciousness to the importance of hiring a renovator who is going to take some precaution.

On the business end of it I think there needs to be some value added for the renovator themselves. I think the whole plan needs to have some profit potential built into it for the renovator. And on that side of things, I think it's important not to make the requirements too expensive and too extensive. I think there needs to be something that a renovator is going to feel is a business opportunity.

MR. MACALUSO: I certainly hope that we don't talk about switch plates. Maybe I wasn't clear. I'll respond to Greg's comment first. I really hope it's not about switch plates. That a big mistake, and that's like meaningless. I don't think anybody on this planet is saying that you're going to have to be certified and use licensed workers to remove switch plates. I don't even think we should be discussing switch plates. I think we're talking about real lead abatement here, not switch plates.

To be very clearly, earlier someone mentioned my name, I don't see any reason why renovation and remodeling work can't be done by a trained work force. I can't imagine why you wouldn't want to have a trained work force out there to protect your child or whatever child. If that means that they have a certified company that is using equipment that is certified to be used in this particular area, and they have trained workers to use that equipment, I don't see anything wrong with that.

MR. BULLIS: I think there are four pieces. The first piece is that there

has to be a statement available that is simple, that is no more than a quarter of page, maybe a third of a page long.

Secondly, that gets out on billboards exactly like that so the contractors can say, if somebody bids against me, make sure that they have this training.

Thirdly, there needs to be a training available that makes sense. Vermont has trained 9,000. People is a very, very small state, but in an per capita basis, that's an awesome percentage of the people in Vermont that have trained. But their training is three hours. Now there is some debate as to whether you can really do anything in three hours. Maybe you need six hours.

But if that training is taken out of the classroom, which it should never be in, and in a house, which is where I train low income property owners, and you show the workers the set up, they will understand it in minutes. If you talk about it, you could talk for days, and they'll never get it. And if you follow some of the workers up, you'll know that.

So there is a training that works. That's the first thing to do is create a very, very brief, four to six hour training that is free, that is available to everybody, that every customer knows is available, so the customer can say, before you do this job, go down to the little neighborhood training and get this training, and then I'll hire you. These people need a piece of paper that says they went to the training. I'm not talking about certificates. I'm just talking about the letter of completion.

The final piece is we have to take the capacity of doing dust tests out of

the monopoly of inspectors so that thousands of people can do dust tests. That is homeowners can do dust tests, the small contractors can do dust tests, the property owners can do dust tests. So that people have some way to check to see whether this four to five hour trained person, that understands this paragraph, that the customer has yelled at, has actually done it right.

That becomes a system that actually works, as opposed to these fantasies.

MS. TOHN: I don't want to disagree with anything that Dennis said. I wanted to make two other points. In response to Ernie's question -- or actually it was the guy from the apartment owners -- no one wants to regulate the guy changing a switch plate. I just don't think the way to do it is two square foot cut off. I think the way to do it is to focus in on the activities that cause the problem, because one square foot of paint being sanded in a particular way can cause a big problem sometimes, if it is heavily leaded, and it's in a kid's room, and they are using a palm sander. It's not a great idea.

So the way to do it, as everyone is saying here, is not by square footage. But let's stop talking also about all the things we need to regulate. Let's start talking about some of the things that really are causing the problems. Let's stop discussing all renovation and remodeling activities. That's not what this is about. It's not where kids are getting poisoned most of the time.

To me, the perfect is the enemy of the good. Let's stop trying to prevent every possible exposure that could be a problem. If we've got lead-safe repainting and demolition to happen in this country, we would have had a huge victory. Now the

challenge for that industry, in the way it is structured, how can we change that behavior?

In addition to consumer demand, is it possible to come up with a system, like Dennis has just articulated, where we have a very clear performance dust standard at the end, where dust testing was cheap, and even better, could be done on the spot, the technology might be there. Voluntary training, where people could get specifics on how to get tricks on how to get stuff. The consumer could know whether someone had done the job right.

I know it's not a problem, I got a dust test. You, my contractor, where's my dust test at the end? I'm not going to pay you the last block. We have data that can make you guys probably feel a lot more comfortable that you can achieve these clearance rates. Dust lead levels in housing could be much, much lower than people ever believed it was even two years ago.

So I think that their message at EPA has got to be stop using the word "general" renovation, all renovation and remodeling activities. That's not where we are going to get the biggest bang for the buck.

MR. FARR: I would be happy to associate my remarks with Dennis' as well, but the trouble is in terms of maintenance worker in apartments, and a whole lot of the other things we are talking about is that the same people do a lot of different things, which is why I say I don't understand how any of this can work if you are talking about any kind of requirements with respect to training or certification.

It's sort of no brainer maybe to say that plumbers and electricians and

roofers -- there are some kinds of things which people do, which rarely if ever, have anything to do with disturbing lead-based paint. So one thing that's pretty easy to do I would think, is to eliminate some broad categories of people who just do those things, maybe even window replacers. I don't know.

But we always have to, it seems to me, to face up to the fact that whether you are a painter or a remodeler or a maintenance worker, you do a lot of different things. Therefore, what we should be concerned about is trying to materially affect the behavior of those people, which certainly involves training, and certainly involves a huge effort at consumer information.

MR. NIX: The constituency that I represent is a very large federal property owner, or a federal agency that owns a lot of property. For us, we don't have two work forces. We don't have a trained work force and an untrained work force. We don't have one work force that does abatement activities, and another work force that does remodeling and renovation. We don't hire a contractor and make his credentials such that today is remodeling and renovation, so he doesn't need certain credentials, but tomorrow we'll hire that same contractor, who probably has the same employees, to do abatement activities.

In other words, it really doesn't make any difference. If those same people are working for very long, they are going to be doing abatement activities. We can't afford to differentiate, and pick our work crews to go out, well, you're trained, so you can do this, and you're not trained, so you can do that. It's just too hard.

Moving onto the diminimous question, diminimous is always a good standard to have, but the question is, how do you apply that? We haven't really heard how a diminimous standard would be applied. But I would like to suggest maybe if it's applied at all, it should be applied to the idea of clearance for the work that was done, whatever that work is, whatever it involved, as opposed to -- well, I don't know. I'm not sure where this conversation has taken us so far.

But I think that clearance really is the firewall between whatever worker, whatever the purpose of the work is, whatever activity he does, on whatever size area. The children that are the ones that are being lead poisoned, this is not an OSHA rule, so we are not focusing on worker protection. What we are focusing on is the results of workers' activities that may affect children. I think clearance is the firewall that will separate those two activities. Clearance is really where we need to focus.

MR. BULLIS: As much as I hate to, I have to agree with Dennis. I think it's necessary to apply this rule here, to keep it simple. We are this whatever you call it, and however much it is, this creates a hazard. I have seen projects performed by contractors with a very sophisticated work force, all the manuals in the world, all the bells and whistles. But you go there or this moment the supervisor doesn't have to be on site, and everything is going to pot.

But I've seen other projects done by one guy with a pick-up truck, that had one day worker training, he was very conscientious and followed the steps that we have established in our work practice regulations in 1988, controlled the access, containment,

followed the proper methods, did the clean. We came in and we did clearance testing. It was beautiful. Everything was below the threshold.

That is what we need to do, is kind of distill this down. Our work practice regulations currently, since we have had this shift in the Title X, we do have our special program in Maryland now. We used to apply those work practice regulations across the board. If it's lead paint, and you were disturbing it, you're out of this scope of authority, of jurisdiction.

Well now, it's no longer that way. It's all based on intent. So it has to be specified there is a lead paint abatement project or designed as such. So now we don't have any lead abatement projects. It's a real shame. Now we have a situation where you have to have like a slide rule to figure out exactly which work practice regulations it falls in. If it's rental property, if it's built prior to 1950, if it's Tuesdays. It's extremely complex to the point where the industry that we are talking about that is going to be performing this work, there is no way that they are going to able to ferret out which exact things they are going to need to follow.

If it's individual rental property in Maryland, they've got to follow 261601, 11c, 2,3, and 5 through 8. Well it took me like four days to figure that out. How is your average remodeler going to know this?

Try to focus this down. As nice as the hierarchy, and I agree with the framework, it all made sense, but when it comes down to the real world, it's going to be very difficult to get folks to do it.

MS. BOOTH: I also represent apartment building owners and managers. I agree with what Greg said, but I also agree with what Ellen said. One of the reasons why we have supported a diminimous area is because the definition of what a renovation and a remodeling job is has been so broad.

Like George said, we don't want this to be about switch plates either, but our fear is that it is. That's why we have supported -- if you look at the disclosure rule that came out this summer, the way that is written, it could be used to be apply to a whole bunch of switch plates if you did them all in the same room. That's our fear, and that's why we have supported the diminimous area.

But we would also support closing in on the definition of what a renovation job is that causes a hazard, and what a remodeling job is that causes a hazard to be used in place of the diminimous area if you can narrow that down. Our fear is that that hasn't been done up to this point. It's been such a broad definition that it encompasses virtually every job, and that's why we have supported the diminimous area.

MR. CASEY: That was an interesting discussion of the question. I think most of us thought was it the right question to ask. It was an interesting nonetheless.

What we're going to do is cut the conversation a little short. We'll move our lunch break up a little, and then I'll talk at lunch to Mark about whether they want to have the 1960/1978 discussion or redirect it.

Mark, do you make a couple of observations before we close up?

MR. HENSHALL: I've got five really quick points I wanted to make

before we break. The first point I want to make is that early on Nick said that we're not hearing what we thought we wanted to hear, or we're not hearing what we wanted to hear. We got exactly what we wanted to hear.

The two square foot, the genesis of it is in the 406 rule. We have to begin at that point, because that's the first step in we have in renovation. That's why we put it up here, understanding that that may not be and probably wasn't the perfect tool. What we got was I think an excellent discussion that focused around issues of scope and applicability. So we got exactly what we wanted. I think this has been great.

The second point I wanted to make very quickly, EPA is very cognizant of the demand side. We understand, as Ellen has pointed out, that without increasing consumer demand, without consumers saying I want a contractor who is going to pay attention to lead hazards, without a consumer saying it's worth it to me to pay the extra $72, $116 to have the job done right, as opposed to done wrong is extremely important to us, and we have a good understanding of that.

We're not here to talk about that as much today, but just I want everyone to understand that that's a big part of the calculus that we are talking about back in the office.

The other point I wanted to make on this general discussion is this mirrors the conversations we have every day about how this rule ought to be structured. I don't think we heard anything in here that is way off the beam. It sort of represents all the ideas that we have about how to structure this kind of regulation.

More importantly, although we deal in regulations at EPA, we view our goal as minimizing risk to renovation, or minimizing risk to homeowners who have renovation done in their homes. This is one tool that we are using to get at that, but we understand that that's not the only tool. We're here today to talk about that one tool, but we have a lot of other tools at our disposal, and one of them is to focus on the demand side. Hopefully, you'll be seeing more of that from EPA in the coming months.

One thing I don't think we're comfortable with is just allowing the tort system to enforce standards. I'm not sure that anyone at the agency would be really comfortable allowing a standard being well, contractors will do the right thing because they are afraid of getting sued. I don't think that is something that we're going to be comfortable living with. We would like to see something else in place, and I'm going to talk about that in a second.

The other point that I want to make is that we are not concurring entirely with what Dave Harrington said. We're not seeking to create another class of contractors. We have abatement contractors now. What we're looking to do is to get renovation contractors to do their job better and different than what they are doing it now. We are not seeking to have jobs redlined.

We don't want the asbestos situation where a contractor is going to see a house and say I can't do that. I want good quality PDCA contractors who contain well to do their jobs in a way that is lead smart, lead safe, however you want to term it. So we don't want to see jobs falling into the leaded and non-leaded categories. That is an

anathema to what we are trying to get at, which is consumers having access to contractors who can do good work, who can put a good finish coat on a paint job, but who can do it in a way that doesn't poison children, and doesn't create lead hazards.

So when we are thinking about all of these things, we already have an abatement world out there. So as Dean pointed out, we have a complicated world we're living in now where intent drives our previous world. But we have those people. We've got trained abatement contractors. We don't want another class.

I guess the final point I wanted to make in all of this is I think we all have a pretty good sense, whether it be five tiers or Dennis' more simply three-quarters or one-third of a page, I think we all have a pretty good sense of where we want to be. The question is how does EPA compel that behavior change? Because that's really what we are asking people to do is change their behavior.

Change consumer demand. Change the actions of the contractors. Now a gross change. Not get them to abandon all that they knew how to do, but how can we take an existing category of people who are renovation contractors, remodelers, decorators, painters, how can we get them to do their work in a different manner?

So how do we compel that behavioral change? That's what we are here to talk about. As I said, a rule is one of those means of changing behavior. That's not the only one, but we are going to try and talk this afternoon, and we'll talk a bit at lunch about how to structure this afternoon. But how, through a regulation, do we try and compel people to change their behavior? That's really all we're here to talk about.

So when you are sitting down at lunch, try and think about how we compel people to change behavior, and whose behavior ought we be changing?

I'm going to leave you with that.

MR. CASEY: Everybody should be back in their seats by 1:00 p.m.

[Whereupon, the meeting was recessed for lunch at 11:51 a.m., to reconvene at 1:00 p.m.]

A F T E R N O O N S E S S I O N (1:08 p.m.)

MR. CASEY: Just a couple of where are we today, what are we trying to accomplish today, kind of to touch base on. First of all, this is not a consensus type meeting we are having. It's more informational, brainstorming, let's identify issues. So we may not spend a lot of time sort of looking for compromise positions. Right now it's important to get as many positions on the floor as possible. So from a process point of view, keep that in mind.

Going with that, there is going to be another meeting that Mark and Mike both talked about, probably sometime in late February, early March. They are looking for that being a two day meeting, where there will more things to react to at that point.

A couple of people wanted to talk about what is EPA's role in the current meeting, and why they are sitting over there, instead of around the table. The thinking on that is they really want to know what the stakeholders' views are. They really want you to have these conversations. It's a conversation that they have been having for a number of months, starting out looking at things like diminimous levels, and all the other implications that come from it.

What we are going to do for the rest of the day is focus on some additional applicability issues. We thought we would for now, put aside the housing stock issue, for fear that we kind of stray off again a little bit. We will focus on one that is probably a little more emotion for people or cuts right to the heart of thing, and that is we want to start and go from now until probably 2:15 p.m. or 2:30 p.m. talking about the

applicability of clearance testing. That's something on the agenda, but we have moved that up.

Then after the break we'll back and we'll look at some other applicability suggestions that were made earlier in the day.

To reiterate what I heard this morning -- and we do have people taking transcripts, so if I didn't hear it right, it will be accurately recorded -- I heard that diminimous has all kinds of problems. That came through pretty loud and clear from what all of you were saying.

With that, that kind of lead into people really describing what was the importance of the program. What the good attributes would be. I've heard terms like implementable, enforceable, simple, that it be coordinated with the demand side functions. So I just wanted to sort of re-emphasize that I've heard all of that as an output of what started out as a pretty basic is there a small size below which we shouldn't apply this set of regulations.

Questions on any of that?

Agenda Item: Presentation of "Strawman" Approach to Clearance Testing

MR. CASEY: This is a little bit of a variation from what you have in the materials that we sent to you, but it's very minor. What I'd like to focus the discussion on for the next hour, hour and 15 minutes is should there be clearance testing?

In the suboptions you have here -- you had three in your handout -- to be

required for all jobs. It should be required for some jobs. If that's the case, give us some examples. Should it be suggested, but not required, some type of a guidance? Or should it be never be mentioned?

Before we had get into it, I'm going to ask Mike to give a quick definition on what EPA is talking about clearance testing and what they have in mind.

MR. WILSON: I'm not sure that I would call it a definition, but just so you understand some of the implications that would go along with clearance testing, when we're talking about clearance testing, we would be talking about the use of dust samples. We would be prescriptive in saying determining the number of dust samples, the locations of dust samples to be taken on a given job.

Currently one possibility is that dust samples would be taken by a certified inspector or risk assessor as certified under our abatement program. Another possibility would be an additional discipline just to do dust testing. So you are looking at testing that will have to be required to be done by a certified individual, that we're going to be prescriptive in telling you how many and where, testing that currently cannot be conducted at a job site, or the analysis of the test cannot be done at the job site. It will have to be sent to a laboratory, which normally takes about 24 hours for the results to be obtained.

So you are looking at a renovation perhaps where either a family has been asked to leave the area, or has been cordoned off in some way. That those areas will be inaccessible then for at least 24 hours.

Then of course based upon these clearance results, if they are above our clearance standard, then that would mean that the contractor would then be required to return, do further cleaning, and resample the area.

Just so you understand that when we say clearance, we are certainly not talking about a visual inspection. We are talking about something far more prescriptive and time consuming.

MR. CASEY: Thank you. Comments?

MR. MACALUSO: Just to clarify, who would do this clearance testing in your mind?

MR. WILSON: Currently, as the regulations are written today, our abatement regulations train and certify inspectors and risk assessors. So one possibility would be that any clearance would be required to be done by a certified risk assessor or inspector.

Now there has been -- and I think it was discussed this morning -- the possibility of an additional discipline being thrown in there, that would only deal with dust testing. It would require probably less training, less individual requirements to obtain that certification. That's a possibility.

MR. MACALUSO: But it would remain third party?

MR. WILSON: Meaning a certification type? What do you mean by third party?

MR. MACALUSO: The person that does the testing should be in fact the

contractor that did the renovation?

MR. WILSON: There are certain problems associated with having the same contractor do clearance testing. So we would probably, if we were to require clearance, require the independent third party make the clearance test.

MR. HENSHALL: I think it needs to be discussed. I think people have to understand the pros and the cons of that. The third option would be the homeowner or the property owner could do the clearance testing.

MR. MACALUSO: If the third party is involved, they are doing the clearance testing anyway, just because that's required in the paper work.

MR. HENSHALL: You're getting into who is paying for it. I'm also getting at what skill level or what credentials does that person need. Could it anyone, i.e., the property owner?

MR. MACALUSO: Oh, an individual.

MR. HENSHALL: I think there are sort of two issues here. One, who pays for it? And then the other one is what credentials they need. We have come to this presuming that we would want a trained, certified third party, but that's maybe not the right answer. That's the answer we would gravitate towards, but it's not a bad idea to talk about that.

MR. WILSON: Especially if you look at clearance as being suggestive. If you say that we recommend that you have a clearance test done at the end of work, then possibly the homeowner would be the one doing that testing, or the actual contractor

that was doing the work, possibly.

MR. FARR: We think that some minimal dust testing is probably the only objective evidence that is going to ever be available to determine that this work area or dwelling unit is safe for occupancy by little children. So therefore, we think it would be a very good thing for a lot of dust testing to occur.

We think that it would not make sense if the option is only to have certified inspectors or risk assessors to do it. We would oppose that as being unworkable. It's not only expensive, but there aren't any in lots of parts of the country, and there are unlikely to be any. It would take too much time.

We think that if EPA could figure out how to induce dust testing to be done either by the owner, or by somebody who had training which is necessary to do that work, as distinguished from the other work which certified inspectors do and risk assessors do, that that would be a very good thing.

We think if there were rules or guidelines with respect to work practices, which are very hard to enforce, that nobody is going to be on the scene, that having a dust test would be an appropriate alternative for compliance, if you will.

It seems to me it makes a whole lot of difference as to how it is set up and who can do it, and how many tests are needed and so on to determine whether it should be mandatory in all cases, as distinguished from an optional alternative. So I don't come down on that yet, because I think it depends a tremendous amount on how it is set up, and how can do it, and so on and so forth.

MR. NOLAN: I guess I would be in favor of suggested but not required, keeping in mind that we are talking about residential houses. I'm a residential painting contractor. A lot of my jobs are small in nature, and also they require a lot of logistical concerns, where displacing the individuals from their bedroom or their kitchen, or an area that is a bit of an inconvenience for them, to have to deal with a waiting period for them to be able to enter the room again, seems unreasonable. So it would be the type of thing where I think they would have the option.

Also I think in some cases a visual inspection is justified. I'm just thinking of two examples. One, when there would be no children present. Also, when it is really plainly obvious that you have greatly improved the surfaces, that you have prepared the surfaces, you've done the cleaning, and you are putting a fresh coat of paint on top, and then you walk out of the room.

It seems to me to be something to have to require them to then go ahead and pay the attentional cost and wait the additional time period to have samples being tested, and the results being obtained.

MS. BURGIO: I do think the reliance on a third party inspector is idealistic, but impractical. I don't know, what does it cost to have a third party come in and do the testing after a bay window has been installed -- $150, plus 24 hours at least waiting for the results.

You are also creating a disincentive for the homeowner to have that work done, because you are adding another level of cost onto the work, and you know the

contractor is going to itemize that bill, because he's got to compete with other folks that may not be including that cost in the job. So that cost is definitely passed onto the homeowner, and that is going to be a disincentive to the homeowner.

I think there is an incentive to the homeowner and to the contractor to do it themselves, because it's less expensive to do the home testing, and I think the incentives are out there already. We are providing the information to the homeowner about the hazards of lead in the home, so they should be aware before the renovation is even started that there may be an issue of lead paint hazard through the protect your family pamphlet.

Contractors are typically paid in progress payments. There is usually a punch list at the end of the project about things that still have to be done. It could easily be incorporated into the punch list. They are not going to collect the last payment until that is done. The homeowner can use that as leverage with the contractor to make sure the job is done, and the job is clean.

I think there is some incentive for the contractor to leave the job behind in a clean fashion, because they are not going to get paid the final payment until they pass that part of the punch list.

With respect to the options here about requiring or recommending or not mentioning at all, again, I think it may protect the contractor as well if he can walk out of there and say, the place was clean when I left it, and make sure that the testing equipment used is accredited or approved by EPA, somewhat fool-proof to avoid fraudulent results.

But if he can walk away and put that in his file, then if there is a suit filed later, they will have this as proof that they left the place in a clean state.

You might think about implementing some of the thresholds here when you talk about testing, about pre-1960, pre-1978, whether children are in the home, whether children aren't in the home. So I think we were talking about thresholds. This might be an area where you could compartmentalize the clearance requirements.

MR. NIX: I was wondering if we are talking about clearance only for interior work? Are we also talking about soil testing? Is that considered in this? If it's not, maybe it should be. Lead in soil is getting to be a very difficult issue, especially for the military services, when we try to dispose of housing.

Also, we have several different types of houses we are talking about. If it is owner occupied, and the owner is contracting to have the work done, then the owner is going to receive the pamphlet. It's probably not the first time they've seen that pamphlet. If they choose not to do clearance testing, what can you do?

But if the owner is not the occupant, if someone else, a renter or in a situation, a military member is going to live in that housing, then I think we should do clearance testing. I don't think there should be an option on that, because we need to protect those who really aren't in a position to protect themselves. But if it is owner occupied, I'd flip a coin with you on that.

MS. TOHN: I go back to where I started today, which was the rule that kids are really getting poisoned. It's only happening with certain activities. This is a rule

that probably won't be enforced by any state and federal agency to a large extent. So can we actually achieve behavior change?

When I look at that, I say clearance testing has a lot of possibilities, because we are sending the right message. We are saying leave the job site clean at the end. We are saying to the consumer, I did the work. I'm done. I've left a clean site for those kids.

So it sends the right message about lead contaminated dust, and it tells consumers information you can evaluate very clearly. It says Dean did my job. He says here are the dust test results. The number is 40 from your floors. The standard is 50. I'm below it. I'm done.

It's something that people can understand. It's not so complicated as the Maryland House Bill 760 and some of its elements. So it appeals to me for its simplicity, for its clarity of message, and for the right message. So I think it has a lot of potential, that clearance testing makes a lot of sense in that regard.

I think clearance testing on every single renovation job is a waste of time and energy. I go back to my earlier point that we need to focus on the activities that are most risky in terms of lead dust. So for repainting jobs that are really disturbing the surface before you surface craft, or demo jobs, but I wouldn't trigger it for every switch plate, or every kitchen job necessarily, for every electrical job. You have to somewhere draw the line, because we want to send the right message.

The other thing I want to say is that the alliance would strongly favor not

restricting this to certified risk assessors and inspectors. There is no need that you have to have three days of training to be able to take a dust swipe. A three day inspector course has an enormous amount of time on learning how to use an extractor machine, which is not relevant to taking a dust clearance swipe.

So the alliance would strongly -- I can't say it as strongly as Don would -- favor some type of training for people who take dust swipes, who is not the contractor. But that can be done, and of course that is one day or less.

The other two things I just want to point out is you know let's not get trapped in the existing technology. Let's be a little bit more creative about this. This thing won't go into effect for four years, even if EPA moves at sort of a relatively rapid pace. It just doesn't work that fast, guys.

So if you could envision a situation of lead check swabs or some device could be done where you could get an instantaneous result. If you could ask yourself, if the result could be instantaneous, and it could be inexpensive, would you feel differently about dust clearance testing? You can now get an instantaneous result. It's too expensive. The device is too expensive for most people.

But it is not inconceivable that we could have this technology four years from now. So try not to get trapped by the existing technology.

My last point would be, one thing that hasn't come out on the table, and I think could play a role in clearance testing is there could be a way for people to opt out of this too, if you could show that there was no lead-based paint involved in the job, even

if no lead. You can envision a situation where contractors doing risky jobs would be able to show that there was not enough lead paint to worry about.

MR. FREEDMAN: I think we're getting trapped in some thinking that isn't really relevant to the idea of the jobs you are considering. This is the renovation and remodeling question. The distinction between renovation and remodeling and abatement is the intent to eliminate the lead-based paint hazard. So let's consider what our contractors are coming into that house to do.

They are coming in to repaint or renovate a room. They are not coming in to reduce the lead-based paint hazard. As such, I'm very nervous, and I'm worried about this idea of holding them to a standard that says you've got to get this thing better than it was when you walked in.

The only way I can see a clearance testing having any relevance here is if there is a requirement -- and I'm not suggesting we have to have this requirement -- but you've got to have a baseline against which the contractor would be held if you are going to try and make them test. The only standard to which they should be held is no worse than what they walked into. If you are going to say you've got to be below a threshold, then you are talking about an abatement question, and that's not the nature of the job.

Beyond that, it's absolutely apparent that you cannot say only inspectors and inspectors should be able to do this job. It's got to be widely available to anybody who can swab a floor with a piece of moistened cloth.

Then of course there is the question of soil testing as well. The same

questions of baselines applies there. If you are going to hold a contractor to a clearance standard, the standard should be no worse than what they walked into. We do recommend to our members as a matter of liability protection, it is a good idea to take a sample. I know contractors who do that. They may not test it, but they will hold the sample in case any other future questions arise.

The only threshold that should be important is the baseline, not a final make the house better than it has to be.

MR. FINE: I agree with him to a point, with the exception that I don't agree that the contractor should order the homeowner should be the one take the test. If we, as a contractor, are going to be required for clearance testing, as somebody in the industry for a long time, I wouldn't want a homeowner holding that over my head as a last payment.

There is enough that they are going to get us with, and that's not going to be an issue as far as my jobs are concerned. It's also a matter of a liability issue with insurance companies.

Fellows who go through our training and qualify for insurance, one of the requirements is that they get the job tested by an independent person. That covers their liability, and it covers their assets. To have a homeowner or to have the contractor -- it's like separating church and state. I need an unbiased opinion, because if the homeowner decides that I did something wrong, and there is a problem, I don't want him, with his criteria, coming back to me and saying you didn't do this right, because I tested it.

Now whether it's going to be a certified risk assessor and all that, I think that is going overboard. I agree with Ellen that somebody could be trained at a much lower level, and I have done some research in our area that are inspectors, if you give them enough work and they know that part of the final job is going to be the test, you can contract with them on an annual basis for certain types of costs; $150 is totally ridiculous to pay somebody to come out to your residence or your job site to do an inspection.

If you have any substance to your work level for the year, you can obtain services of several different firms to come out and go to different job sites. It's no different than getting a dumpster company. It's no different than getting a demolition company. But my criteria is that I don't want myself or the homeowner to do the testing. I need to take that liability and give it to somebody else.

MR. MACALUSO: I've got a couple of things here. First, on the soil testing, my issues aren't with that, whether you want to soil test or not. That's totally up to you, but then you have to pre-test. Anything you post-test, you have to pre-test. Then you have to get a representative sample, and that can get kind of expensive. That's just a concern. If you want to pre- and post-test soil, if you want to regulate that, that's fine. I don't really have an issue with that.

What I do have an issue is with the definitions renovation and remodeling. Renovation is huge. I can demolish the whole inside of a building and call it remodeling. I think it's silly. When I lived in New York, prior to going to college and graduate school and stuff, I did demolition work on somewhere are 18th Street between 5th and

6th Avenue. We gutted the building. It was a row house, but in Manhattan row houses are not like you would think. They are very expensive.

It was basically gutted. Now that's renovation. Is that the kind of renovation you would like to get out of? That's renovation. That's just what it is. You're not talking about a couple of light switches, a little painting, some sanding. You're talking about interior demolition of all surfaces. You have the range from a light switch all the way to interior demolition that falls under renovation and remodeling.

As Ellen pointed out, I think maybe if you applied some sort of criteria of what you're calling it, that would trigger it, that might be useful. Would I require it on a small patch painting job? Maybe not. I would require it when you demolish the inside, took out all interior partitions? Yes, I would.

MR. LIVINGSTON: First of all, the prices certainly can come down. The lab costs are $21 for a full set of composite tests. So we can bring the price down to $50 or $60. We certainly can train people to do quality work in a brief period of time. Pat has followed a high school group that I trained that you said had the same results as his own crews. The labs have said that the paper work of the high school students were far better than the so-called professionals, and consistently, not just sometimes.

If we do go back, and we have to keep going back to what is the work that was done. One of the ironies of this document that was sent out is that paint stripping was put at one of the lowest levels. Both from my experience and in the Farfeld(?) study, paint stripping is one of the most toxic, dangerous things you can do as far as

leaving high lead residues.

Using power equipment, if you are doing demolition, and if you are doing certainly paint stripping and large areas of dry scraping, maybe not just touching, then certainly you should have to have a third party person in to affirm that you have cleaned up well. The fact that there was lead on the floor before you made the mess is irrelevant.

That's different on the outside of course. It certainly is relevant if the soil was heavily contaminated. But for inside, based on this list we are sort of coming to of stuff that makes a bunch of dust, you should have to clean it up. You should have to clean it up with a third party.

On the lower level, there is no reason the family has not moved out of the house for most of this work. So saying that you have to wait 24 hours before they move back in isn't relevant. Most low level maintenance and just house fixes, the family is not relocated. That's just the lead program.

So again, we're back to we have to create a class of work that needs to have worker protection, and that needs monitoring at the end of it, and defining the nature of that work is what both trade people and customers will easily understand.

MR. LEVITT: I agree with the need to have some kind of clearance testing done before leaving the site, and taking that to insure that reflected in the lead safe fashion, the contractor has done so. But I also concur as many people have already mentioned the fact that some quality assurance mechanism should be placed on people who perform those types of wipe samples. Perhaps there is some way of doing it in a

shortened version, other than the full blown risk assessor inspection course.

One of the other issues that I may need some clarification on what this is, whether or not if you do say a pre-sample, and you also generate this data, the tie in to issues related to the disclosure rule from the homeowner's perspective. I think many of us who are familiar with the disclosure rule know that in some cases homeowners would not want to have knowledge of the presence of lead-based paint and/or lead-based paint hazards.

And that rule of course requires some disclosure of reports if they are available. By some of this activity, some of these reports are generated. Either you have a sample result that is pre, you have something after the end result. The question is will those two rules or these two issues, how they will run together in some instances in implementing either of those.

And whether there will be some disincentives perhaps for some homeowners who have this work, if we are presuming lead-based paint to be present without the benefit of an inspection or other data to verify that, how will that carry out with the contractor coming in?

MR. KELLY: I think it's important to ask the question about what we really expect from clearance testing here. When Nick started out the discussion, he said that one of the purposes would be to determine whether the dwelling is safe for reoccupancy. That might be so in some cases where there was an extensive renovation that occurred throughout the dwelling.

But in many more truncated situations, where limited renovation was taking place, and perhaps in some section maybe some window was being replaced, and containment was put up in that area, that area was cleaned to the level where it might pass a dust wipe clearance wouldn't carry any guarantees for the rest of the unit. I can imagine that it might protect the renovator from some future liability in fact if the work area passed the dust wipe clearance however.

I think that the public perception of the goodness of dust wipe testing is very important. I think that possibly some guidance document should be prepared which would perhaps spell out those kinds of cases where dust wipe clearance was appropriate, and perhaps those other situations where it might not be.

Because if the public perceives dust wipe testing as something that is onerous, and over and above what is really necessary to protect their own safety, perhaps their family's safety, or their tenants' safety, this is not going to succeed. There will be collusion between contractors and whoever is hiring them to do this work, again on the QT, an agreement whereby the owner would say, no you can do this work, but you don't have to do the dust wipe testing, and it's fine with me.

So I think there needs to be public education about the goodness of this, and when it should be done, and when it shouldn't be done. I'm not sure it should be done across the board.

I think that to repeat an earlier comment, the issue of clearance testing sort of blurs the line between abatement and renovation. Perhaps what Mark said about the

purpose of renovation not being to create a lead hazard-free unit ought to be drawn into this thinking about when dust wipe clearance should be required, and when it shouldn't.

MR. BULLIS: I don't really have a good suggestion here, and I'll tell you why. The reason is we're going back to that very issue which is in some sense we have already let the horse out of the barn when we made the decision to not call this work abatement. This is repair or renovation or whatever you want to call it. Again, we're getting in that semantics. We're opening a tremendous Pandora's box with this clearance sampling.

There are all kinds of risks that we run when we start looking at doing this or not doing it. For example, you may even be creating a disincentive for a property owner let's say, to want to do any kind of repair work, because now he is going to have to get a test. Once he gets a test, he shows that there is some lead there, whereas before he had no testing. Now he has to disclose that. That's a rental or a sale or whatever.

I'm not saying I'm for or against, I'm saying there are lots and lots of things and complexity that have to go in here. There is a huge disruption between the occupancy issues and where do we start drawing these lines? Again, we've got to start thinking about keeping it simple. If you have -- who is going to decide how many samples to, where are they going to be taken? Who is going to review those results?

It it's a high school student doing it, are you going to make them stay after school if they didn't do it properly? I would really strenuously argue that they do need to have trained, accredited people performing this, because if you don't, what you are going

to do is you are going to discredit the fragile industry that we have now. What we have done well, the parts of the industry that are being regulated and follow-up and overseen with some viability, we start having anybody and everybody taking samples, and what does that mean?

It's just going to broaden it to the point where it is just going to discredit it I think, to some extent. We have to go back to starting with the education and incentive to have these folks just following a procedure. I'm working on a study now with Batel(?) where we are doing these composite samples and so forth to see how viable that is.

There is all kinds of means to reduce the cost, but again, you have to think about this industry that we are talking about. The property owner has two properties, and he does the work himself. It's all fine and well to sit up here in the ivory towers, but we're talking about people that are just marginally able to pay their bills, but they own a property or two. They want to do this work. You are going to throw in even $25 or $100 sometimes may be more than -- they say well, I just won't do it, because now I've got to have that testing. Well, the government will now fine me for not doing a dust test.

MR. HARRINGTON: I just wanted to revisit some of the issues. Until we address some of these other issues that we talked about already this morning, I don't think you can address this question, because we need to talk about scope. We need to talk about performance-based versus prescriptive-based standards. What are we doing here. Is this going to be a performance-based standard.

The implications of testing with regard to disclosure. Third party versus

contractor versus homeowner, costs related to that. Record keeping in terms of the implications of that in terms of are we talking about reporting these results to anybody? Are we talking about creating a bureaucracy? Is it basically just internal things between the contractor and the homeowner?

Then finally, if we are talking about enforcement versus market demand. In other words, is this a consumer driven demand that this be done, partly because even if these regulations do exist, what's the capability of the states and local county health departments or environmental health departments to do ongoing enforcement around this?

Then there are all sort of outstanding questions which need to be addressed before we can address the clearance testing.

MS. TOHN: I first want to dispel I think a misconception out there, which is that it's really hard to meet these clearance levels. I know contractors are concerned that you are walking into units that have high dust lead levels. Kevin you're walking in and the floor lead levels are over 100, and now it's my responsibility to clean up existing hazards.

If you look at the data from the HUD evaluation over 3,000, 90 percent pre-1940 housing, most of it is pre-1910, it is not housing in great condition. They are getting HUD grants to do lead work and rehabilitation work for a reason. For median floor dust lead level pre-intervention, before anything was done in occupied is something like 17; really low. We're talking about less than half the proposed standard, and less

than one-quarter the existing standard.

So in the properties you are probably repainting, where the floor is smooth and cleanable, and not rough and pitted and gouged, it would be very unlikely that you would walk in, in an occupied unit, and find a dust hazard that exceeds the standard right now. I can't say it would never happen, but it is unlikely. It's not the norm.

Then the second question is how hard is it to clean down to these levels? We had mixed experience in the HUD evaluation. You could say sometimes they didn't always meet clearance. There's sort of not a lot of great work that has happened there too, but we have lots of great examples where you can clear to these levels. It is not impossible to clear to these levels, and you can do it.

I'm not just attacking you, Kevin, but just to dispel that. I don't really think that these units all have gouges or that it's impossible to clear, and so we shouldn't use that as a foil again doing dust clearance testing.

The second thing is what this rule should really be about is do no harm. Do not harm these children. You have to ask yourself what is the simple thing the federal government could do to do no harm? Well, maybe they could ban the really, really harmful things. You can really identify what the really, really harmful things are? Because sometimes there aren't alternatives, as you have pointed out many times, to the really, really difficult tools, because you have to use it sometimes.

So what do you then tumble to? You have to tumble to something for the things that really cause a lot of harm. How can we be sure that we left these kids

protected? Clearance testing seems to me like a really clear, objective measure. Some type of dust testing. Now maybe we shouldn't call it clearance testing, because it's a very loaded work, and it means different things.

It's really post-activity testing of some variety. Who does it when, I agree, it's a complicated thing. But I think it is the best metric of what really happens. And because there will be no state enforcement. Dean will never enforce this rule. He's too busy enforcing abatement, where they are really telling you they are doing abatement.

Maryland has one of the best programs in the country, let's face that. The consumer say what were the results. Show me. And no paper work, because that presumes somebody would ever look at it. I mean even in 1018 we have tons of paper work. We can't even enforce a single case there. We have five cases we have enforced. But it's a waste of everybody's energy. Don't even fool yourself in the ivory tower.

MR. NOLAN: I guess you're proposing that would be mandatory?

MS. TOHN: Well, no. I would say that it would be mandatory in certain activities that we think are really high risk, and it would be recommended for the other things. We should clearly draw the distinction between stuff that we think really has the possibility of creating big problems with stuff that probably doesn't, and for them, the contractor can do it for their own liability protection.

We should, as a country, know that you can go buy a dust test kit. If I get a low risk, I want to check my contractor. I want to say to Kevin, I'm going to check the dust afterwards. You can say okay, fine, I'll do a pre-test. I'm going to show you I didn't

make it any worse.

So I would isolate it to the things that really, really do a lot of harm, because I would say we have no idea how to regulate this kind of stuff. So why would we try and cast a net so widely? We haven't had great success in some of the other lead areas. We presume we're so smart, like we think the whole abatement thing is working swell. Come on.

So let's just focus on the place where we really think there is a big problem, and let's try and do some targeted minimal paper work.

MR. NOLAN: Well, I don't have a problem with it being recommended. My concerns would be who hires the tester? If it is the contractor, there could be a conflict. I have failed these tests, despite the fact that I couldn't believe. It's out of my hands. It goes to a lab. I don't know whether they are getting the plastic bags mixed up or what, but it seems to me that it's difficult if you take 20 samples, for you to get 20 good tests, where you passed.

There always seems to be a few niggling areas where have to go back. I have even had to go back a second time. The area looks clean. My people say, I don't understand this. Then the third time the inspector says to me, well, I'll be over that side of the room. I'm going to do it right there. So at any rate, there is the possibility that you could have some conflict of interest if in fact the contractor was hiring the person.

Now I don't know how you would be able to require that a homeowner hire the person. Are they are going to be required to spend the money to hire somebody

after the fact? It doesn't seem like that would be constitutional. So at any rate, that's it.

MR. MACALUSO: I'll just mention that I personally think that the owner should be responsible for the tester. Obviously, there will be a recommendation by the contractor as well, this guy is really good, and it's up to the owner to decide whether they use that company or whatever. That's up to them, the contractor.

The agreement should be between the owner and the testing company. As far as training requirements, it's minimal. You have to train these people anyway, because you have to teach them about chain of custody. They are meaningless samples if you don't provide these things. So there has to be some training.

But I worked in consulting firms, and a lot of times their training is minimal too. They are not all brain surgeons. They try to hire people that have college degrees, so they have some colleges degrees, at least in the eighties with the asbestos, college degrees in the science, but there is going to be some requirement of training, but it is fairly minimal. You teach them how to prepare the sample, make sure the bag is clean, fill out the paper work that is required, as far as chain of custody.

I don't think that's a really big issue, and I don't think a lot of this stuff is going to be expensive. I don't think that's an issue at all. As soon as you do it, and I think you really need to do it, you'll find that the prices are really not that much. It hasn't crippled the industry. It hasn't crippled the homeowners. It hasn't done anything, except provide for cleaner work.

I'm just curious, we keep on talking about home. Doesn't this rule apply

to renovation of office building? Target housing? All residential. In that case, it's clear that there should be some oversight on the quality of the work that is done. Again, as I mentioned before in my earlier comments, renovation can cover a lot of work. A lot of partitions can come down under the word "renovation" or remodeling. A lot of ceilings, a lot of floors can be demolished.

MR. KELLY: I think perhaps when Ellen posed the rhetorical question about why we were casting the net so widely here, perhaps that is because the holes in the net that were supposed to take in the letters where perhaps a little bit too large, and therefore a lot of the renovation work that is being done in this country today, I think we need recognize, and we all do recognize is not just for renovation purposes.

There is a lot of renovation work that is being done to satisfy requirements of lead laws. Rather than complying with state and local lead laws by having an inspection done before the fact, and then hiring a license contractor to do deleading in many cases, renovators do this work before an inspection is ever performed and deleaders get involved.

So perhaps this effort here to look at renovation is a way of stanching some of the deficiencies that have occurred. But how that relates to clearance testing is that I think it all the more solidifies in my mind that what we're moving towards here is something that looks an awful lot like regulation of deleaders. I just think that we need to look very, very closely at that before we proceed down that path too far.

MR. RILOTA: I'd like to start out with saying that I think for certain high

risk activities, some type of post-activity testing -- I like that terminology -- should be conducted. The question of a third party doing that, I have to go back to the other issue of affordable housing. How much of an impact would this have on affordable housing?

If it results in a rental cost going up $10 a month, what does that $10 equate to for low income people? We have to remember that. Is it $10 less clothing for them, $10 less food on the table for that family? So I think that there should be some type of post-activity testing.

I think from a practical standpoint, because we are also concerned with affordable housing, that we find some type of mechanisms to actually have the contractors maybe do that activity. I think we have to be creative and come up with something.

Which leads me to the other issue. I think one of the most important activities that EPA can do right now is to funnel all kinds of research into coming up with an instantaneous, very quick, cheap, reliable methodology for doing dust wipes. Almost like a colormetric test with the wipe that changes color if it's nay or yea, something like that. But there should be a lot of research that goes into that, because it will make our decisions much easier. It will be probably one of the greatest discovery to protect public health.

That can be also used in your lead abatement clearance too. You can get those families instantaneous back into their dwelling.

One other advantage -- I don't know if it was mentioned today -- about

having some type of post-activity testing, it goes to the fact that it provides a feedback mechanism for the renovator. The renovator will, after doing a couple of these dust wipes, will start to learn what works and what doesn't work in the clean up process. There is no feedback mechanism. It's a good check and balance for the renovator.

You can get very sloppy over time. You've gone through this X amount of training that you've had, if it's two hours, if it's two days, whatever it is. Then you're out into the field. Okay, wet mop, maybe vacuum with some high efficiency filtering system. Okay, that's good. Now I know I've done a good job.

Then the next thing you know, you start getting a little sloppier and so on. It's just getting a damp piece of paper towel, and real quick like that, and one pass with the vacuum. This provides a mechanism for the renovator to know how much effort needs to go into, for what kind of activity, for the extent of the activity.

It's a good feedback mechanism, and I think that's another piece for those that are conscientious renovators. It will really help them do their job better. It protects them. It is good from a liability standpoint for the renovator to walk out of a job and say listen, you don't have to worry about it. You can't go after me. I've got some data to show that I cleaned up this area adequately.

MR. CASEY: I want to shift gears just a little bit, to just sort of focus this in a little more. You should have little pieces of paper in front of you. You can grab those and a pen.

Not everybody, but a whole bunch of you suggested that it might be

appropriate under some circumstances, to have some type of post-activity testing. I have heard lots of examples of when you would, and two examples of when you probably wouldn't, and two in between.

So what I want to do -- and if you don't want clearance testing, you don't have to do this part of the discussion -- but for everybody that thought there might be appropriate circumstances, I want you help me draw a line. A number of you have suggested that post-activity testing might be appropriate. If you are in that group, give me two examples of when you would, and give me two examples of when you wouldn't.

Please write them down, and then if you have written something down, I'll be happy to read aloud what you wrote down. I just want to get a lot of information here at once. If you don't think it's appropriate, that's perfectly fine; don't bother to write anything.

We're going to go around the table, asking what your two examples of in and two examples of out, or tell me if planning. That's perfectly appropriate as well.

MR. FINE: I think the total rehab of a job, like George mentioned. That should be automatic. To be a typical window or door trim tear out should not.

MS. TOHN: I would when I was doing interior demolition and homes built before 1950, that is sort of knocking down interior structural. And interior machine sanding that is unfiltered, there is no attachment to machine sander. This is dry machine sanding.

MR. CASEY: Examples of when you wouldn't?

MS. TOHN: I would not ever require a roofing contractor to do lead clearance testing. I would require it after drilling small holes by an electrician.

MS. BURGIO: I would agree to perhaps mandatory clearance testing when it was tenant occupied, because I that was an issue raised earlier, or child occupied. And perhaps recommended testing with demolition activities and high risk activities.

MR. CASEY: Did you have any where you wouldn't?

MS. BURGIO: All else.

MR. RILOTA: For testing I would say wall prepare where lead paint is in poor condition. I don't if there should be a diminimous for that. Interior demolition in pre-1960 housing, and for activities where we shouldn't -- I have a question mark next to carpet removal. I'm not sure about that, but that's a possibility. Plumbing or electrical activities where there is limited surface wall or floor surface disturbance.

MR. GOLDSTEIN: Mine goes in a slightly different direction, but I would encourage testing when there are children under the age of six, and in targeted housing, where there are histories of problems of lead poisoning. Otherwise, I would not make it mandatory.

MR. KELLY: I like Greg's thought about the recommendation, rather than the requirement in some instances here. I also like the thought of the diminimous, which had been discussed this morning. So I would say that I would like to see dust wipe testing where there is dry scraping or sanding of over two square feet on the interiors, and for all interior demolition work. I wouldn't require it for those kind of

operations for involving less that two square feet on interiors.

MS. AINELIA: I think they have already been mentioned. I've got rehab, either room or dwelling or demolition, and sanding of painted or stained surfaces. When I wouldn't I think again would be the classic switch plate replacement that has been mentioned, and limited drilling. I would argue, however, that totally rewiring an old housing generates an enormous amount of dust. So I wouldn't just exempt electricians.

MR. PATCHAN: High risk occupants, high risk activities, pre-1950.

MR. CASEY: Everything else is out?

MR. NOLAN: I would when lead blood levels are high from individuals in the house. Also I would just like to say that plumbers and electricians do make big holes, because we fill them. They make lots of dust as well. I wouldn't at the owner's discretion, and that in pre-1978, when there has been little lead disturbance, even despite the fact that there may have been lead-based paint.

Many of the homes that we work in are intact, but they've got plenty of lead in them, but the paint is intact, but we have created very little mess.

MR. FREEDMAN: I had children under six down, so in the interesting of putting another idea, I would also like to say where requested. We had a discussion earlier about homeowners and people who might decide that this is a good thing, so it's appropriate where requested.

Similarly, I think it would be appropriate where pre-testing has shown some level of concern. You can define that threshold however you want right now.

My not would be for the flip, where there are no children or expected to be children. Also, I would also for the possibility of owners to waive this requirement. If they are just not concerned, then let them not have to worry about it.

MR. HARRINGTON: Presuming we are talking about target housing and child occupied facilities, I would have testing done for any kind of gut demolition work after clean up has been done; after all the containment has been taken down and clean up has been done. And also for any kind of interior hand or power sanding after containment has been taken down, and clean up has been done.

I would exclude things such as pulling a door and casing, moldings, and also things like dismantling cabinets.

MR. DANIELS: I had any housing or child occupied facility where children are present, where renovation and remodeling has been involved. That's where I took a diminimous approach, which this would always deal with the negotiation later. At least one window, and one-third or more of a carpet covered floor, a painted floor, or a painted wall surface where the wall surface would be using sander, heat, or stripping.

Secondly, if the housing did not fit that category, then I would have no testing at all, or perhaps then some sort of owner/contractor testing if we would decide on that.

MR. MACALUSO: I would do any interior partition demolition, whether it is gutting or not; ceilings, floors. I would also include any major sanding of walls, molding, and mechanical sanding. I would exclude painting where there is very little

preparation. The walls are in good shape. There is no reason to demolition the plaster or the sheet rock.

I would also exclude removal of components -- cabinets, doors. I wouldn't exclude door frames, but doors, windows. It would have to be decided at the quote, because every demolition job is different. So you would have to make that call when you look at the project.

MR. O'CONNOR: I would require test testing when using a contractor who is not trained. Training could be a combination of formalized training, video, or hands-on instruction. The second time I would require post-treatment dust testing is when using a contractor who does not have established work practices, and cannot document the ability to meet post-treatment levels on three similar jobs that are in nature to my task.

When I would not require testing is when I'm using a trained contractor with established work practices, that has documented at least three times prior to meeting post-treatment levels.

MR. LEVITT: Again, we come back to the diminimous issue. I think clearly for items where you are just putting a nail in a wall to hang a picture, or somebody is coming in to do something like mount shelves, I could see there being not necessarily a need for that, but any other activities that generate various levels. Again, we break these levels down.

We've had this in this thing, we have five levels. But it has to come down

to some sort of a low or moderate dust generating activity that you are doing to the surface. Ellen got to that previously, based on what you are doing to the surface, driving the type of sampling that you are going to do. If you are going to be doing some sanding, for example, are you going to imparting power to the surface in one way or another? That would be an activity that would warrant some type of dust sampling afterwards to insure that you have left the place in a lead safe fashion.

MR. LIVINGSTON: If you tear through paint layers or open up walls, you dust test. If you don't, you don't. I would like to say that it's crucial that we don't make the presence of children a criteria, because then we are discouraging people to rent to children. We can't do that under any circumstances.

MR. BULLIS: I'll pass.

MS. VALLS: I would probably being the person doing the enforcement in 406. I asked a question where I would I target the work. Where would I like to see this regulation cover? If anything else, what would be the largest universe of people I would like it to cover? I would like it to cover for the most part, properties where there are small companies doing the work, either for outreach or for enforcement purposes, because that's where most of the children at risk seem to be in this situation.

Secondly, I would want to think a lot about rental situations. Just as we design this, I wouldn't want to focus as much enforcement on owner occupied as on rentals, because we try to make this work to reduce lead poisoning.

MR. CURRAN: I kind of went through the same types of scenarios as far

as activity-based, and the size of the project, demolitions and so forth as far as required and recommended. As a state health person I'm sitting here saying how can this be enforced. I'm going, wow, it can't.

I would almost go back to the point of education and recommendation. And then require something if there is certification. I don't know how in rural North Carolina, the rural south, it could be done. It just can't.

MS. ATKINS: Under my required I had demolition work for pre-1960 housing or history of problem with lead levels. And not required I had simple work such as minor repainting with little or no preparation work, minor changes and alterations such as installing some light fixtures or hanging curtain rods; those kind of very minor things that probably wouldn't. Then also where there are no children present.

MR. FARR: I like Pat O'Connor's idea. We keep trying to think of how we can induce contractors to get trained so the know what to do. Pat's idea about saying if you can prove that you have taken a course and passed a test of some sort, then if we can get that to happen, that's neat. So I think that would be a very good idea.

If you don't go for that, here at least I would think about pre-1950 housing. I'm sympathetic with Dennis' point about not discouraging people from renting to children, which can be a problem. So if you are characterizing the kind of house that you are working in, I would say pre-1950. But if you can use it as a way to induce people to take training, I think that would be a real plus.

MS. WORSHAM: I was just trying to think of something Army-specific.

We had a couple of situations where we had a building that changed use from an indoor firing range to a building where children might come into contact with it, specifically the new use for the building was as a storage room for sporting goods. So this is an example of a place that they would need to do dust testing before allowing it to be used for an area that children could come into contact with.

MR. BELFIT: After 25 people have gone before me, it's hard to be original. But again, just to reiterate, I would be comfortable requiring some post-activity testing for non-owner occupied or child occupied, or likely to be occupied by children areas, and when the paint is in poor condition, or when any surface to be disturbed by the work is known or assumed to contain lead-based paint.

Maybe not have any post-activity testing when there is historical knowledge that indicates that that activity does not result in an increase or hazardous level of lead in dust or soil. I would not require it if the owner waives the requirement, and also if you are doing a diminimous type of activity. I'm talking about repair work, not surface areas.

MR. CASEY: We are three or four minutes from our next break. Does anybody want to ask anybody else a question of what they said? Do you want to ask a question of clarification?

MR. LIVINGSTON: The Baltimore Clean Harbors is one of the most trained groups there. They create an enormous mess.

MR. BULLIS: Real quickly, I won't speak to Clean Harbors, but I will

speak to about 780 maintenance people that have had a one day training course that meet clearance levels 98 percent on the first time basis. That have about a sixth grade education, that read at a fourth grade level. They are in fact the work force in this country. Your one isolated case of Clean Harbors does not represent the country. It does not represent the work force that needs to be trained and educated, and in a minimal amount of time you can equip many people with a lot of knowledge, and 98 percent of the time they will pass the first time.

MR. LIVINGSTON: I agree with that. What I'm saying is that the requirement is useful, because one of the things that has happened in South Baltimore is that people doing outside work on houses regulate each other, because if they are putting up the barriers and collecting the waste, then they are turning in other contractors that aren't doing it, and homeowners know.

So just the fact that it's a rule, the fact that people are bothering cheating about dust means that they are aware of it. That's tremendous progress. We are going from zero, not from something. So some cheating is great. It means people know there is a rule, know it's there. They know you've got to hide when you don't clean up.

So if we get there, we're going great. What Pat says is absolutely right. Most maintenance people and most contractors, given clear, simple work to do, will do it, and will do it well. But there still needs to be a rule that you can invoke when those contractors don't.

MS. BURGIO: I just wanted to clarify. I said tenant occupied housing

would require testing, therefore you would avoid the situation of discouraging rentals because of children. All tenant housing. So I don't know that they could afford to eliminate all children. With respect to child occupied, it would be the owner residential single family housing with children present. I would recommend that.

MR. CASEY: Thank you. Anyone else want to ask a clarifying question? Why don't we take 20 minutes.

[Brief recess.]

MR. CASEY: A show of hands before we get going. How many of you here are going to be responsible for enforcing whatever rules come down on way or another?

MR. CURRAN: Well, that depends on if the states are going to do it.

MR. CASEY: Those of you that raised your hand, I'm going to come back to you for a reality check, because the first question I want to put to the group is this, if the proposed rule identifies that clearance testing was required or post-activity testing was required under certain condition, and I'll have examples -- everybody can come up with at least one -- how would such a regulation be enforced?

Help me think of how you would actually go about enforcing that. Those of you who would actually have to live with that, you get to sort of say whether it's the last test or not.

MR. CURRAN: If it was going to be enforced, we would have to have a change in our state law as it exists now, and most states would have to change their state

laws to require it. And then if it's going to be enforced, then we would talk about certification of individuals. That's why I was kind of ambivalent when I said, gee, clearance testing is a good idea. I like it, but I don't know that I can require it for renovation and remodeling unless there is some certification tied to it.

What is going to happen on a state and local health department level is we're going to get into discussions as far as completion of contractors, rather than is this a health hazard. You didn't meet my contract or I met the contract.

So I would have to go back to statute regulations. Right now there is no mechanism for renovation and remodeling in most states that I'm aware of. So that's kind of where I'm coming from.

MS. VALLS: At the EPA we are expecting that we will be enforcing this at the regional level. For the most part, there aren't many states that have offered, because we're not offering any money to the states for this program.

Pieces of paper are the evidence. If there is a requirement for this, there would need to be some piece of paper that I would have to ask for in order to document that there was a violation. So in other words, talking about a report, even if it's one page. If we are talking enforcement, I need a piece of paper to show to the judge or whoever, which means the contractor needs some training to know to document it. And how long do they have to keep those records? It triggers questions of records.

MR. RILOTA: I live in New Jersey, and in New Jersey I had to get a permit to put a sink in. There is possibly a mechanism. Actually, I think if you had to

have a clearance testing, obviously if there was going to be some type of reporting on that, it would have to be done at the local level. Local health departments could be involved in that, or you could have your building officials.

Typically, when you are doing some type of renovation, oftentimes you need to get a construction permit. With that, they could add on by just amending their uniform construction code, something like that, that you would also have to have some type of clearance testing. Whether with that clearance testing there would be a clearance certificate or not, there is a mechanism where they could possibly do that.

Also, another way is many municipalities have certificates of occupancies. This could be for rentals, and also for transfer of real estate. You can also add in there that with that CO, for example, you are going to be renting a unit out, and your building official comes in there, or your CO inspector comes in and say, oh, by the way, you have X, Y, Z here and it needs to be corrected.

That could be you've got deteriorated painted surfaces, or you've got a water leak. They can turn around and say you have to repair that, have a lead safe requirement, and that the renovators have to do that in a lead-safe manner. And say that before occupancy you must also have some type of clearance test with that before that place can be occupied, or that real estate can be transferred.

So there are some different mechanisms, and I think they can actually just be through some tinkering of certain building codes that states and local municipalities have possibly.

One more point though, I think that the one thing that you would have, is you would not have uniformity throughout the state in the way that it is being interpreted -- the rules -- and enforced probably.

MR. HARRINGTON: In California we already do have enabling legislation to basically implement Title X. In our Title XVII accreditation and certification regulations, we have recently amended them to add a work practices section, and add a section mainly related to abatement activities. However, on the work practice side, in order to become a state approved plan -- well, no, the abatement activities that are in the revised Title XVII have to do with becoming a state approved plan, but we did add a section for any kind of exterior work, for example requiring containment.

However, the big problem with that, as there would be with having state regulations in this regard, would be the issue of funding. Basically, it would fall on the shoulders of the counties and the municipalities. We could amend building codes. We would basically be relying upon local county health department environmental health specialists who are already trained to go out and do inspections.

Or we would have to be training building inspectors in local municipalities that have the capabilities to do this. In either instance, you are talking about some new staff and some level of training. Basically, the question the counties would come back to us on is this is an unfunded mandate, and you are requiring us to do this. We have this regulation to enforce this, but where are the funds going to come from so that we can actually make this happen at the local level?

MR. KELLY: I think that's what we would be seeing in Massachusetts as well, the argument about the unfunded mandate. Actually, Massachusetts is sort of rare among states in terms of statutory authority, because I believe that we have had the authority to license renovators, and even to require dust wipe testing if we needed to since 1987.

We currently have exercised the authority to prescribe work practices for certain kinds of renovations, and of course we can enforce those requirements perhaps only spottily across the state. I think the only way you could really insure any level of enforcement would be to require job notification, and I don't need to tell you that the numbers of jobs that could be subject to this kind of requirement would be so high that I don't believe any state agency of normal proportion would ever be able to inspect these, and insure that the dust wipes in fact had been performed correctly.

MR. LIVINGSTON: It's really much simpler than this. There are two pieces of paper. One piece of paper is the results from the lab, and you as a contractor put it in your folder, and the property owner puts it in theirs. The other one is a piece of paper that says that you took the four hour course, which Patrick has taught many of, and I've taught a few of.

When you don't have a policeman at every stop light, you know it's against the law. Once in 1,000 times that you go through a stop light, there is a policeman there. It's called spot checking. You don't have to go to every single house to do this. You basically put out a law. You make people aware it's a law, and

homeowners, other contractors, property owners will invoke the law, and you spot check to make sure that people are doing it.

It's just those pieces of paper. One says I took the training. The other says I cleaned up the job. Those are files. Those are made accessible when you are going to hire someone. That's it. Basically eventually people will know not to hire people that don't have that piece of paper that says I took the training. You don't need elaborate certification and testing and pre-permits. You don't need any of that stuff.

MR. BULLIS: Obviously Dennis has never done enforcement.

MR. LIVINGSTON: I've been the victim of it.

MR. BULLIS: Number one, you will have to focus and narrow the scope of what you are going to put this requirement on, if you are going to put this requirement on with 57 million homes potentially having renovations done. There is just no way that we can have that kind of response period.

Secondly, spot checks are great. That's a great idea, but you won't be doing those. Because you want to know why? You are going to be spending hours and hours and hours with some woman has two or three children, who had now gotten the result of some number tied to of 57 micrograms, and you are going to spend hours explaining what this means.

MR. LIVINGSTON: You make simple forms. It says this is bad for your children or this is good.

MR. BULLIS: This is for the regulatory authority. The question is how

are you going to enforce it? What I'm saying is you are not going to have time. You are not going to have staff. You are not going to have the ability, because you are going to be responding to the complaints of the work practices, the complaints of all the various parts of the industry, the actual lead abatement projects and things.

I just don't see the infrastructure ever being what would need to be, to be adequately viable, capable, and there to enforce that, unless you really focus it and narrow it. It's going to probably still then be complaint-driven.

MR. O'CONNOR: At first I thought the question was being posed that many people would not respond. Was that the start of the question? That we wouldn't have complaints about the regulation? Or is the question more about how states would invoke or pass bills and laws to enforce it if the law were to say for large interior demolition projects we need post-testing?

MR. FINE: What law? State law, city law, EPA regulations?

MR. CASEY: This proposed rule. How would you go about making such a rule work?

MR. O'CONNOR: Well, I wouldn't know how you could make it work. I know how you could make people informed about it. You would probably then amend the renovator disclosure requirements to say that post-treatment testing is required. Then mandate that on their contracts or the proposal that they put in the 888 EPA pays a $250 bounty to the consumer who reports contractors who are violating the law.

There is precedence for this. It's the CFC regulations for the bounty, who

people who vent CFCs. There is actually a pretty wide compliance with recovery system and contractors who do not vent CFCs into the atmosphere, because the consumer actually gets a bounty when they call the 800 number. It is 888-EPA-PAYS.

MR. FARR: The same question applies to any regulation. Any requirement of any kind where there is certification or not, it's the same question. The reason why, as several people have said, why it's a little easier is because there is a piece of paper or as Dennis says, two pieces of paper. If you have work practice requirements, there is no piece of paper. There is no video screen taking pictures of it.

As a practical matter, I think that Dean is absolutely right. Nobody is adding inspecting in any state or city that I know of in the country. As a practical matter, the only way you are going to really enforce it is by complaint. It would be nice to do spot checks, but I don't know anybody who really does spot checks.

So it's really complaints, and the complaints could be a property owner sort of hears that somebody else did it this way, and says, gee, they didn't do this in my house. Or it could be a rival painter or remodeler. But the reality is there won't be a lot of enforcement on any of this stuff, which is why we think it's so important that it be something that is reasonable for painters and remodelers to do, and that there is demand for it.

MS. TOHN: I think that the enforcement is two fold. One, there is no spot check. It is simply complaints from people. The second thing is that it's educating the consumer to be an educated buyer. The consumer says you're doing the thing. Like

Patrick says, I got a pamphlet. I'm hearing ads on the TV, the drive by radio. Everybody knows when you do interior demolition and repainting -- this is the vision of the future -- that you should leave a clean job site. Whether we require dust testing or we recommend it, whatever it is, the consumer is the enforcer.

Then people will say, will that do any good? I would challenge you to look at Vermont. There is a regulation that tells property owners and people who do essential maintenance practices that you have to go to a two and a half hour training. There is no enforcement authority. They have zero enforcement authority. They will be completely honest with you on that point, but it's not 9,000, Dennis, I don't think, but it's somewhere between 7,500 and 8,000 people have taken a training class, and do the work differently, because the customer has come to expect it.

They ask when they come into the property manager and they are going to paint these units, someone says are you an EMP trained contractor? That person says, yes, see, I took the class. That's how it is going to work. That's going to have to be good enough. You have to be happy with that level.

MR. CURRAN: Well, you're talking, and the last couple of people have been saying it's complaint driven, but when someone calls into a state or a local health department and says, I want to complain about my contractor has still got a level of whatever, and I think it's too high, then I have to have some type of mechanism to formally deal with that complaint.

MS. TOHN: You're the guy who does it, and I don't do that. Why can't

you say that person needs to meet the clearance levels?

MR. CURRAN: Then we get into the person saying, I've met those clearance levels. I think the test that this homeowner is taking is totally wrong.

MS. TOHN: Go take another test.

MR. CURRAN: Who takes the test?

MS. TOHN: It leads to arbitration.

MR. CURRAN: Ellen, we have to get into then looking at the laboratory, certification of labs, certification of individuals. You're building an infrastructure that states may not have the capacity to deal with.

MS. TOHN: Aren't there certified labs already? We already have EPA labs.

MR. CURRAN: Right, and I realize that, but if you are taking -- say we get 40,000 demolition permits in the state a year, and if every demolition involves sampling, and we're going to end up in arbitration, and not in protecting the public health.

MS. TOHN: Maybe we need to invent a better widget here. If we could have an instantaneous result that was pretty accurate, then we don't involve the lab.

MR. CURRAN: Right, but then even if it's instantaneous, who is taking that sample? Does that sample results indicate a health problem, rather than a contractual problem? I don't know, I totally agree with Dean. Once you get down to it's complaint driven, then the states have to start, or EPA, or even local health departments have to say

well, if you get a complaint then the first thing somebody is going to say, a judge or somebody is going to say is how have you determined that this is correct? We just can't say because we feel that way.

MS. TOHN: I mean I guess I'm trying to envision why -- I understand Dean's comments. I've spent hours on the phone with people asking similar but different question about lead. So why is it your responsibility to --

MR. CURRAN: Well, if someone says I've taken a wipe sample, and I've got 200 micrograms per whatever, then was the sample taken correctly? We're not getting in a health --

MS. TOHN: But there are clear statements about how to take samples, then it's sort of not your judgment. If they are going to court, some judge is deciding did they follow this standard. There is a standard about what is good for taking samples. I don't know, I probably don't appreciate all the complexities. My job is to try and push something to make it happen.

MR. CURRAN: We're here to push to make it happen too.

MR. NIX: The enforcement -- we each represent our own constituency -- enforcement for the services, specifically for the army, under Title X, Section 408, that's the section we call the waiver of sovereign immunity, that says that federal agencies are subject to the same laws as anyone else, and the same fines and penalties and so forth.

We take that very seriously, so we recognize that any federal, state, or local law concerning lead-based paint activities, and I guess now maybe concerning

renovation and remodeling activities we would be subject to. So the way we would enforce that, we have an environmental compliance assessment survey that we do at our installations, where we go in and look at all the environmental requirements -- this would be an environmental requirement -- and determine whether or not they are doing that.

That's an external audit. They also have internal audits, which are the installation status reports. They also generate an environmental project report, which lists all of the requirements that they need money to pay for to do environmental compliance actions. It could be in the case of this rule, training. We have an environmental fund that helps pay for those activities that they identify.

We have an army regulation that we would have to update. We have a public works technical bulletin, which is a guideline, to tell them exactly how to run their programs. We have Corps of Engineer guide specifications, which I think might be useful -- not a Corps of Engineer guide specifications, but some kind of standard guide specifications for the homeowner who really cares to have this renovation and remodeling work done properly.

If you could have some kind of a document for them to use, a boilerplate, when they contract that work, to be sure that they get what they should get, that might go a long ways to helping out in the private sector if they are interested.

But in the army, the responsibility after we have published the technical guidance and the policies, the responsibility for implementation rests with the commander. Our assumption is that G.I. Joe is a good guy. The commander is not

required to report his compliance back to army headquarters. He is just required to be aware of the policy, and to implement it.

So we don't want a technical rule to come out that has a truth table with dozens of columns and rows in it. We just want to know simply what we should do, and then we will do it.

MR. KELLY: I think it's only good government when rules are promulgated to assume that anything is unequivocally required is going to be complied with, and therefore I don't think it would be responsible to put out this sort of a requirement, if it were a requirement, and not expect compliance.

I know in our experience in state government, that really enforcement is a necessary component of insuring compliance, and I can think of a number of cases, both at the state level, and at the federal level where if inadequate enforcement exists, compliance or non-compliance is sometimes in the interest of the affected parties. If that were not so, the lead in construction standard of OSHA would be complied more times than not, and I'm not sure that's the case.

I think that the essential maintenance practices requirements in Vermont are perhaps a little different than the potentially specific requirement of dust wipe testing. I think that although consumer education might play some role in the enforcement of that, and the transmission of complaints from consumers to the state governments, I'm not sure that that's an assured means of compliance.

If consumer education played that important a role in the enforcement of

the 1018 rule, then we would see more demand for the requirements of the 1018 rule to be implemented, and I'm not confident there that that is the case.

MR. RILOTA: I would just like to mention a couple of aspects about what I had mentioned before about having the building official or building inspection departments involved in having some oversight as to some type of clearance certificate associated with renovation. I do want to point out there are some severe limitations there.

Building officials typically have a zillion other responsibilities. They are not health professionals. What they will look at, if you did follow out the scenario I mentioned, is was the test done, and did it clear? As soon as somebody asks any other question more than that, you are going to get no response. They are not going to be trained to do any more of a response than that.

So the other way of getting to assist the public in answering a lot of technical questions and inquiries about was it done properly and so on, then maybe the local health departments could probably do a better job, but they don't have the wherewithal. If the building officials were to get more involved in this type of procedure, of course what does it mean? More work for them. It would probably result in hiring more people. Then you are getting into local taxes going up.

The idea that there would be some clearance testing required, or any activity under the expansion of 402, including training, I think it's very essential that EPA realize that the states would have more responsibility, and would have to increase

the funding for us to actually do these activities.

Right now we all know that our fees that we collect from training providers and certification are not adequate to run the 402 program. With these additional responsibilities the only way a state has any chance in even doing the most basic implementation of 402 I see is just that EPA would have to increase their grant funding to the states.

MR. LIVINGSTON: This Wednesday Dr. Needleman is making a presentation to four or five government agencies, in a meeting chaired by Janet Reno. The presentation basically says that 70 percent of the people in prison have elevated blood lead levels. A child that is poisoned costs society $30,000, $40,000, $50,000. This isn't a money issue. The money is already being spent, and it is being spent badly. It's being spent after children are horribly poisoned.

Debating about whether it is crucial that we deal with these very high levels or not, I don't think is valid. People keep talking about if the level clearance is 100, how do you know who is 98 or 110? The answer is we don't have a clue. I don't care if you are certified or not certified or anything else. These are very subjective tests.

Children aren't being poisoned at clearance. Children are being poisoned in houses where we are getting readings of 1,000 and 2,000. That's where children are being poisoned. If we don't have a law to bring hell on the heads of the people owning those houses and responsible for that mess, we are going to keep getting poisoned children.

That's what we are here for. We are not here to have little academic debates about the marginal differentiation at the point of clearance. That's not our goal. Now we need to figure out how to get to our goal, but to not have a rule that demands that work is unconscionable.

MR. FREEDMAN: I was thinking about something that Bryan Patchan had said earlier. He was talking about the insurance question. It occurs to me that I don't know whether you can make a linkage between EPA regulations and what insurance carriers require of their contracts or clients, but I've seen this happen in other areas, notably the safety area.

The driving force between contractors of all stripes of all trades putting into place effective safety programs is the impact on their workers compensation premiums. Of course all employers are required to carry workers compensation. So the guy gets his insurance. The insurance carrier says, you put in a bunch of safety program that are effective, and that will be reflected in your premium rates.

It would seem to me a similar type of leverage may emerge, and I say "emerge" because I don't know whether you can create it. But it could emerge along the lines of any responsible contractor who is going to be doing this work --and there is a qualification right there -- will be carrying liability insurance for third party exposures. I would expect it to be in the insurance company's interest for a contractor to do clearance testing so that they would be able to tell that the liability exposure has been reduced to the extent possible.

That's sort of bridging a gap between the state regulators and the federal regulators and the private sector. But in terms of Ellen's desire to have behavior modification in this regard, those are the things that I have seen that have had an impact. That's where I see contractors all the sudden sitting up and taking notice.

MR. BULLIS: I did want to say that in Maryland we do have an oversight authority for doing spot checks, for actually looking at the inspection contractors when they do clearance testing, and we haven't seen a lot of problem with those folks who have been trained, and have something to go on.

But again, I want to emphasize that we need it to be focused and clear, what those things are, and I would just throw out to be aware and look for the pitfalls, playing devil's advocate. The question is what do you tell somebody when the clearance sample failed? What do they do next? Who is going to provide that guidance?

It's just oversimplified the way we are looking at it right now. It's much more complex. We are really getting into risk assessment types of things here. I kind of think if we are elevating this remodeling and renovation to such an extent, why aren't we just calling it an abatement project?

Secondly, I would like to think that we would be able to establish some mechanism to shorten the enforcement response capability that we have currently under the current system. In other words, Ellen, I need to explain to you I think it's real easy to say well, he didn't do it right. It's not that simple. You have a prepare a litigation package. You have to provide the elements of proof. You have to really pass a very

significant test to be able to say that this is the person that did the thing. This is why it was wrong.

And this all has to be prepared in a litigation package, with a lot of work that goes into that before you could take it to some authority and then say, now let's issue an order or do an administrative penalty. It's much more oversimplified to think that somebody is just going to go, oh, you got me. Now I'll do it right. No, they just go, get out of here.

MS. TOHN: I do appreciate that, although I have never done it. Maybe we should think about other ways. I'm not sure that that really is going to make a difference in how contractors do it. I mean states could be more creative. I don't have all the answers, but you've got a contractor who fails a bunch of clearance wipes and is doing a bad job, publish their name in the newspaper. Put reports into the Better Business Bureau. I'm sure there are problems with those ideas too, but there have got to be other ways that we can get information to consumers that say Dean Bullis' Painting Company does harm to children.

I have very little interest in creating a bureaucratic nightmare for people in state health departments, who as far as I can tell, have way too much to do chasing kids who are already poisoned. So I have no interest in making paper work that isn't really going to protect kids. But I do have an interest in changing behavior of contractors.

You're not going to resolve that here today, but it seems to me before we kill this thing, we should say are there other ways of following through.

MR. BULLIS: I agree. I mentioned before, the study that we are doing. I kind of created what I call the Bullis scale to go along with this, where I took some wipes on various surfaces, and then cut them out into little quarter-sized circles, and had a graduated visual scale where this is clean, this is very clean, this is dirty, this is very dirty. I can sort of see where you pass clearance or you don't. Obviously, that's not perfect. It's an oversimplification.

I also agree with Rich. I think we need to involve the housing folks a lot more in this process, especially the livability code enforcers and coordinators in the local jurisdictions and counties, because too often we run into the situations where in fact they are working against us when it comes to implementing lead-related programs.

MR. O'CONNOR: I think Dean said it for me.

MR. HARRINGTON: I just wanted to reiterate a little bit here that clearly we're not going to design the perfect system with a cadre of inspectors in very county, who is going to be able to go out and do this, and some integrated system with local building enforcement and housing authorities, and what have you.

But I think this is clearly one of the many levers which is true in any circumstances. There is also the issue of just general liability that contractors face, as has been mentioned here as well. I think the thing to keep in mind is there are various levers and incentives out there, and primarily for contractors it's not going to be some inspector, unless it's a complaint driven system, because inspectors are just not that available.

On the other hand, there is the whole issue of having a good relationship

with consumers, having a consumer base, having a good reputation. There is also the possibility that contractors can have complaints filed against them to the contractor state licensing board, which on the one hand primarily deals with other issues, not health related issues. Most states are not dealing with this program.

However, shoddy workmanship falls under that same kind of a category, whether or not it's lead or else it's leaking pipes. So I think there are a lot of different mechanisms here that could come into play.

I want to point out in the liability issue we have done what we call kind of getting started training seminars for remodeling and painting contractors up and down California, just to try to get them started. These are half day seminars, and time and time again the big issue that comes up for them is liability.

We tell them, well, here's the thing, if you have general liability insurance, look at your policy, look at the fine print, discover that you have a contractors pollution exclusion clause. You don't really have any coverage for what you are doing. They say, oh? That's a big surprise to them often times. They say, well, what can we do about this?

Besides this whole issue of finding acceptable insurance premiums, which is sort of a long-term issue, our message to them is your best protection is a good lead-safe run business, making sure that you have done what you need to do, and that you have documented what you are going to do before and after, whatever you need to do. But basically you have no protection out there anyway.

You might have workers compensation protection, and there are some incentive possibilities there in terms of worker protection, but not in terms of liability and the consumer that you are dealing with.

So I think that's another important lever that is out there, that they realize I'm liable no matter what here, so what I really need to do is make sure I've got a well run business.

MR. CURRAN: I was listening to what David was saying, and unless we keep it simple -- I was asking Gerallyn, the states can adopt this. The federal government has it, unless the states or tribes adopt it. If it is not simple where the states can enforce it easily, and assure compliance easily, they are not going to take it.

Then you go back to the consumer that David is talking about. That consumer doesn't care whether it is a state official, a local official, or a federal official who is answering it. They would like some response. Is my child safe, yes or no?

Then what happens then is they don't understand, or the contractor gets involved, and goes through the state legislator. All of the sudden it rolls right back to our entire programs, and everything just starts to unravel. So I agree with whoever said it's got to be something very simple to implement without five tiers of whatever.

MR. CASEY: I want to shift gears a little bit. I think this will be a shorter discussion. It's kind of the other side of the coin. If thee were activities regulated in the proposed rule or prescribed in the proposed rule that did not require clearance testing, how would such a regulation be enforced or complied with?

So there is a piece of paper. There is a clearance test or a post-activity test, be it because it's below a line, or because we don't apply it to anything. Is enforcement or complying with that, is it the same set of mechanisms, or is that a bigger problem, or an easier problem?

MR. FREEDMAN: It's been said before. I think the only two levers which you get contractors to comply is consumer demand.

MS. BURGIO: And I'll add liability aversion, whatever that is.

MR. BULLIS: I just don't want to lose sight of the fact that a lot of these things are being done by the owners of the properties themselves or their brother Billy Bob. They are not contractors. They are not licensed. They are just somebody who is doing this work. We do need to have something there, and it should basically be more towards if there is a problem, and it's possibly rental property, then we have the authority to go a jurisdiction to take action.

MR. KELLY: In Massachusetts we are anticipating our response to the 406 rule, and in some ways that overlaps with the clearance testing requirement here, or work practices that don't require clearance testing. What we are thinking about doing, presuming we get delegated the enforcement authority for the 406 rule is to require the distribution of some materials other than EPA mandated ones which would include not only our own renovation work practice requirements, but also some call back numbers.

So if the consumer had some concerns about the way the renovation work was being conducted, presuming that the contractor complied with the 406 rule and

distributed those materials, they could call us back. Now I'm not sure programmatically whether that would be a good thing or a bad thing because of the number of call backs we could potentially get, and the amount of work we could put into following up on those complaints, but that is one potential mechanism that we have discussed to enforce our renovation requirements.

MR. CURRAN: I would just like to ask Marc and Ellen what would be the basis of litigation? Would it be an elevated blood lead in the child? What would raise the consumer ire? Would it be elevated blood leads that would turn up?

MS. TOHN: I'm not sure I understand. What would make people sue?

MR. CURRAN: Yes. In other words, what would say that Dean's company versus my company would do a good or a bad job? Is it the basis of having a child turn up with an elevated blood lead? Would it be just a dirty house after it's over with?

MS. BURGIO: If you go to court and you're really looking for damages, I think your better case would be an injured child versus a dirty carpet. You're not going to get as much in return. Again, personally as a parent, I would be mostly concerned about the child's health.

MR. CURRAN: The states already have a mechanism in there, and local health departments, because we are screening a large population of our children under the age of six already. So if there was shoddy work done by a contractor, it would hopefully turn up.

MS. TOHN: I suppose that's another enforcement mechanism possibility for this is you have plenty of poisoned kids. If the blood lead is above 20, hopefully you are doing an investigation, and you are going out. You may find that there was renovation work that was done right prior to that, and if there wasn't a dust clearance dust, maybe that's the only way you are enforcing such an act.

MR. CURRAN: Or going back to what Richard was saying, I said 40,000 demolition permits. There are probably hundreds of thousands of building permits issues. Rather than having the building people on a local level enforce it, just have them hand a pamphlet of information as they are getting their local building permit.

MS. TOHN: I actually think that when we have building permits or people going out, that's another vector to get the same kind of information out to people. When inspectors come out to job sites for demolition, people are paying attention, because they have the leverage at that moment; the person giving you that permit. You meet that permit to do the thing. So whatever they tell you, you might listen to a little more. So it's another possibility.

MS. VALLS: In some areas we have information on where children are highly lead poisoned in some cities, but that's not necessarily that useful a key in many parts of the country in terms of targeting enforcement actions, because there is not a lot of data in many areas of the country where children are lead poisoned. Although if we were to target where we would, we would try to get that data. That data is not always readily available.

Secondly, in response to something Pat suggested earlier before, and I agree with it. I agree this regulation should be a simple regulation, however -- this just prompted it; I just couldn't not say this -- when you go to court, or administratively trying to show that this contractor failed to do proper clearance. He says, oh, yes I did. Here is my piece of paper. Here is my one lab result. In terms of insurance, that's not going to be that useful. It's not going to help in the court case, and kind of leaves the whole thing with one clearance or two clearance test results from a particular contracting job.

It probably won't help anybody. It won't help us in prosecuting. It won't help the defendant from getting relief from insurance. So that's just a problem, and I'm not really posing a solution right now. I'm just pointing out a couple of problems with this whole mechanism of requiring clearance testing, and using that for anything to implement this rule and reduce childhood lead poisonings.

MS. TOHN: I want to answer this question. The answer is the null set. I don't understand the question. If there are activities regulated in the proposed rule that did not require clearance testing, so presumably there would be some other thing required of these other people, I would say why? Nothing.

I'm saying the first thing I said this morning. We should focus on the key high risk activities, require a few things of them, and for everybody else, it's information through the 406(b) pamphlet. So to me this is potentially a null set. I only want required things of the things that really are harming kids. So this is a null set. There would be no

enforcement, because there would be no requirements I would say.

MS. BURGIO: Well, just thinking about implementation, and having talked with various state licensing agencies, so few of them are involved in this rule or these programs at all. It's all the health departments that are sitting around the table, yet you are asking contractors to act differently.

It's the state licensing agencies that often prescribe what contractors do within the state, and how well qualified they are for various jobs. So you might think about bringing those agencies into the loop, and providing some training or requiring the testing of knowledge to work lead-safe at a state licensing level. Whether it would require clearance testing or not, it could work in both cases. That's just another arena of possible administration.

MR. LIVINGSTON: I just want to refocus on something that Pat said. What we are trying to do is we're trying to change an industry. Lots of times in my life I went from wood studs to metal studs. That was a radical change. All my tools changed, techniques changes, measurements changed; lots and lots of changing. There wasn't like this big project about it. The customer demanded a new service, and we learned about it, and delivered it.

The vast majority of trades people, given a simple piece of information, a good reason for doing it, and a methodology for achieving, and access to the training, will change their behavior. That's who we're trying to get to.

That doesn't there doesn't have to be a little bit of a attention paid to the

bad guys. But what we are saying is that if we write a clear rule that gives people a sense of how to learn it, how to do it, and how to find out you did it right when you are done, those three things, most people will comply, because that's what our industry now is, not because there is a rule or regulation.

I can tell you that those clearance tests make a tremendous difference to judges, because it means somebody even heard of a clearance test, heard of lead paint, knew you were supposed to do something. There is already an engagement and an intention to do things right.

If we focus on the people who are trying to get around the law, those people will get around whatever law we write. But if we are focused on a -- and I believe it's a slight change in the industry. We're looking at for turnover treatment, my feedback from property owners is that their costs are only going up 10 or 15 percent in turnover. Is that right? This is not an enormous increase.

PARTICIPANT: It depends on the condition of the house, Dennis.

MR. LIVINGSTON: I'm not talking about the disaster house. I'm not talking about the cheats. I'm talking about the majority of housing. The majority of housing, the majority of tradespeople, if they have been given a simple path, most of them will follow it. Then we need to deal with those exceptions.

What Ellen said first this morning is let's deal with the 80 percent that we can deal with, and change that world, rather than focusing on the most difficult housing and most difficult contractors, and the most difficult customers.

MR. NOLAN: Well, if you are going to try to change the behavior of contractors, I think you have to talk to them. It's strange that only a couple of us are here. There are not many of us here, for starters. Being a chairman of a national committee, when I bring this subject up to contractors, they simply turn me off. They simply don't see any reason for this. So obviously, education is a huge thing here.

They need to know more about the facts of when and ho,w and how many and what levels, and what the symptoms are of lead poisoning. They hear about it relating to inner city. Professional painters don't work in the inner cities that much. They generally work in the wealthier suburbs. So they don't see this as a problem. Their customers aren't asking for it.

So it has to be two pronged. You have to educate the customers, and you have to educate the contractors, and not necessarily fear them into it, but show them that there are other methods that will work.

Also, I think that you have to be careful when you write these prohibitive tasks, that you really take into account real world scenarios. We haven't spoken about the reason why I'm here today, which is to try to influence and change people's opinions toward some of the lead dust minimization work practices, and the possibility that dry scraping and dry hand sanding is going to be outlawed if over two square feet inside or 20 outside.

That's radical. That's a radical change. Unless there is real justification for it, with education and real facts about why there has to be, you're not going to have

anybody paying attention to it.

So it feels like we are talking completely over the heads of the people that are going to be the consumers, and doing the work, and going right to enforcement, when we really should be talking about the whys and what fors.

MR. GOLDSTEIN: I agree with much of what Kevin just said in that this regulation really isn't going to have as much effect as some sort of education campaign could or would. I also have a problem with Dennis saying that we don't need to concentrate on the most difficult housing or the most difficult contractors. Those might be the people that we actually do need to concentrate on, because if you just go and certify a bunch of people who aren't causing problems in the first place, it's not going to make the issue of childhood lead poisoning go away, which is what all this should be about.

So we need to concentrate on the kids who are getting poisoned, and where they are getting poisoned, and the types of people going in there, doing that sort of work, and how we can get to them.

MR. KELLY: I'm kind of glad that the group is at least for a moment here, starting to look at some of those picture items, which I imagine will be discussed more extensively at the next meeting.

But one thing that just popped up in my mind over the last few minutes, in considering some of the kinds of renovation activities that perhaps will come to be identified as not being as hazardous as others, perhaps some of those activities that

involve replacement and not paint removal, window replacements perhaps, those kinds of things. Perhaps work practices appropriate for those kinds of replacement activities will be devised as part of the renovation and rehabilitation standards.

Having done that, wouldn't it be interesting to look backward at the corresponding requirements for deleaders, who in many cases may be doing these same kinds of renovation activities, if they are doing replacement. And to say that what could be a lesser standard in terms of training and other requirements is adequate for these activities if conducted under the heading of renovation, how would we then regard the corresponding requirements for the same kinds of activities that would be conducted under lead abatement?

I think that it could result in the same kinds of dichotomy that we're presently trying to get away from, the dual standard, the stricter standard that is required for deleader than essentially no standard at present for renovation. But if at some point in the future we determine that one day of training is okay for a person who is changing windows as renovation, what would the corresponding requirement or what should the corresponding requirement be for a deleader who is doing the same kind of work in a deleading setting. So that's a big picture item that I've kind of got in the back of my mind.

MR. CASEY: To shift gears one more time, we've got two more questions to discuss in the time we have before us. I want to shift gears and ask if the audience wants to ask the group a question. Heidi, do you want to introduce yourself and

ask the group.

MS. KING: Hi, my name is Heidi King. I'm with the Office of Management and Budget. As such, I'm not involved in renovation or in deleading, and I would ask for you to offer your expertise on one idea. I hear many people today speaking about information to the consumer, about where the real risk emerges, about the problems in enforcing clearance testing requirements. About the desire for stimulating demand for good work practices from the people who are actually consuming these services of deleading or renovation.

So I'm wondering whether or not you think there is a role for a mechanism such as requiring perhaps not clearance testing, but requiring that renovators or lead abators provide information to the consumers saying that we have not performed clearance testing, however, it is recommended that this be performed, especially under the following conditions.

That would certainly allow some flexibility to the contractors, while at the same time providing information to the occupants and/or owners of the residences or facilities. So I hope you would have thoughts on that idea.

Thank you.

MR. CURRAN: I think that's a good idea for the contractors to offer something to the consumers. But to talk about something that Kevin was saying before, the Painting and Decorating Contractors' Council, in Charlotte we have over 500 painters in the phone book. I asked how many are members of the association, and eight were.

So those are 500 people that have advertised in the Yellow Pages. Eight are a part of the professional association that would comply. Then there are probably 1,500 or 2,000 more that aren't even in the Yellow Pages.

So I don't know that those contractors are going to give the consumer anything at all. I think the legitimate, above ground contractors would. I think we are still trying to reach the underground contractors, or try to eliminate some of that.

MR. BULLIS: I would just relate that we are experiencing some problems with persons not able to find those services. In other words, as soon as they mention I'm concerned about lead, I want to have somebody responsible come out and be aware of that and take precautions, okay, well, we'll see when we can work you in to come out and give you an estimate.

They don't want to take jobs for people that are going to be scrutinizing their work, and looking at the health concerns. They want to be able to do the jobs where they can just get in, knock it out, and get their check, and be gone. The demand is so far out there for remodeling work that regardless of lead, they just pick and choose, and you can't get them to return phone calls or come out and look at a job as it is. So if the contractor is going to have the additional issue out there of concern on that homeowner of it being lead work, you can easily kick that one to the side, and do one where he is not going to have to worry about it.

MS. BURGIO: Dean, I have to reiterate your fear, because especially with the protected family pamphlet coming out in June of next year, we are really putting

the cart before the horse, because we are going to be alerting a lot of homeowners to this issue, which I think is a smart thing to do, but we haven't insured that there are going to be contractors out there that are smart enough to do the work properly.

So either we're going to see a whole lot of new litigation, or we're going to see a lot of people looking for contractors, that cannot find contractors that are willing to do it. So I would really like to see additional training, and really simplistic programs out there, or readily available programs.

You may know Mary received a HUD grant to provide training. We have learned a lot from that. I personally would like to see it more readily available, the information. I have mentioned like videos or CD-ROMs or something, because we have to look at mass distribution of the how-tos, how to do lead-safe remodeling for the contractors.

They are just not able, they don't have the time always to take the two or three day training course. So I really want to emphasize the need for more training of contractors, because the homeowners -- I think we will be creating a demand. If the good guys are handing out the pamphlets, but don't know how to provide the good lead-safe remodeling, they are shooting themselves in the foot.

So you have already created a disincentive not to hand out the pamphlet. I don't know how you are going to enforce that, but we are providing free copies to all our members with a checklist of how to comply. So we are putting out press releases to the trade media that we deal with. It's been in our newsletter over and over and over. So as

you said though, as Pat said, so few of the proportion of contractors out there belong to associations that are even getting the information. I imagine even fewer of them are reading the Federal Register.

So we really need to concentrate on not only educating the consumer, which I think there has been a lot of money, and a lot of effort to do, but there hasn't been a lot of effort to educate the contractors so that they can supply these services to the homeowners, who are now hopefully going to demand it in order to protect their children.

MR. KELLY: We had some experience some years ago with what we called a structural painting contractor license in Massachusetts. That's not currently in place, because we ran into some preemption issues vis-a-vis OSHA. But our experience with it was that it was to a large extent, a self-policing requirement that the larger contracting organizations, including the TDCA, were quite solidly lined up against it.

Because the larger professional contractors had a vested interest in promoting the professionalism that the license granted, and therefore when they found out about painting contractors who were doing jobs without being licensed, they would drop dimes on the offending contractor. We did a certain amount of enforcement, which actually resulted in the preemption issue being raised.

I can see the same kind of mechanism coming into play here with lead safety training. If that kind of training were made a requirement, I believe that the larger

painting contractors would surely try to comply, and that there would be this self-policing mechanism that would play out here, and we would get a lot of reports about the non-compliance.

I wanted to comment as well on the previous suggestion related to whether, if in the situation dust wipe testing was made option, but not mandatory, perhaps a statement could be included in the contract, or in some notification to the homeowner that it was optional. It was not being performed in this situation, but was recommended.

I frankly am somewhat attracted by that thought, and I can see how a statement of this sort could be incorporated into the notification that is required to be given under the 406 rule. I think it's a very entertaining notion. I certainly will be thinking about it quite a bit.

MR. NOLAN: First, in response to you, Pat, we have 25 members in the Charlotte area. Although that doesn't represent a large percentage, it's a growing chapter.

Second of all to what Dean said, we find that most of the people that are calling about lead-based paint problems in their homes seem to have a paranoid atmosphere about them, and scare the heck out of most contractors. They are probing, asking lots of questions, more than a contractor has answers for.

I, myself, spend lots of time giving out free advice to homeowners and contractors, and even though I've been talking lead for about eight years or so now, I wouldn't say that it adds much to my bottom line.

Also, getting back to this education thing, I guess I still have to be able to square this with the contractors that I talk to. Is elevated blood levels a problem in renovated in suburban and rural areas? Or is it an issue just relating to poverty and lack of maintenance?

I have an article from May 1988 from the U-Cal Berkeley Wellness letter. I'll just read a little excerpt. It is a wellness fact, "Twenty years ago three out of four Americans had elevated levels of lead in their blood, but today only 2 percent do, thanks to measures such as removal of lead from gasoline, house paint, and food cans. But lead is still a worry where children are concerned, especially those living in older housing with deteriorating paint and/or lead plumbing. Black children are more than four times more likely than white children to have elevated lead levels, because they are more likely to live in older, poorer neighborhoods, according to a recent report from EPA."

MR. CASEY: Rich is next, but I want to refocus again the question that Heidi asked us, which was if some sort of post-activity testing wasn't required, but instead of requiring it there was some sort of a statement that was given to the consumer saying that it was strongly suggested. That was the question that she posed to you. We have been bouncing around in a few different places.

MR. RILOTA: Well, I feel like I have to make one response to Kevin's statement. We have a county in New Jersey, Hunterton County, where our governor is from; huge old homes, farm land, acres and acres of property. Exclusively, every child that has an EPL is because of renovation and remodeling in that county. That's where it

occurs in that county. It's exclusively, and we have the statistics to back this up.

Let me go to Heidi's suggestion on informing occupants that testing is recommended. It sounded good when I first heard it, but then I start thinking, well, I don't think, and most people I think in this field would agree that 1018 -- there is very low compliance with 1018. So I'm not real sure if we are going to get a lot of people after they are hearing, hey, it's recommended that we test, that we're going to have a high level of compliance. It's just not happening with 1018.

Furthermore, I do not have faith that down the road we'll have high compliance, because we're going to say, well, our outreach will get better, and eventually we'll reach that group. I'm not sure if we're going to. That's not to point fingers at the federal agencies. The states have to do a better job educating. I think associations have to do a better job educating too.

We all have a lot more to do, and I don't know if we are going to be able to do a better job, because we all have limited resources. So I'm not real comfortable with that. I think that in certain cases, again going back to one of the first questions, high risk activities that are fairly extensive, you should mandate the testing.

I think that the key question here is though, you make it simple. You allow the contractor to do the activity, because the hindrance to bring in a third party is extremely difficult, and I think it will be very hard to implement. And it is very burdensome, for a renovation job that the homeowner or the building owner has to get two different entities.

Would I would like to have, because I am a proponent of having the contractor do the testing, is to have them disclose that hey, by the way, some may say there is a conflict of interest, because it's like the fox watching over the chickens. I'm testing my own work. And let them know that, so that if they really are really concerned, they can always get a consultant in, and bring in that second entity.

So maybe that's the piece that I would have in a disclosure, that I'm doing my own testing. You may want to get a third party.

MR. LIVINGSTON: I think this may go to the next question on the agenda, but my impression from talking to state officials is that there is a universal sense that people would like a short training, a four hour training, whatever. I think there is consensus at this meeting as well.

But the states basically say until the federal government, EPA, blesses that, not necessarily as a certification course, but just blesses the fact that a four day training is valid -- four hours. The states aren't going to tend to do this until the EPA somehow or another blesses it.

So my question is to the EPA, is there some process less onerous than the process to get the certification through, to put out some statement from the EPA that says this is not to contradict or to replace the existing certification training, although that's necessary to some extent also. But this is basically we bless you to do this training. It's a good thing. We want you to do it, and we'd like you to give people at the end of the training, a letter that says they finished the training. The letter is to whoever in EPA, of

whether this is something that could happen.

MR. HENSHALL: That's an incredibly valid idea that I think is not off the table at this point. I can envision a scheme where I don't know about four hours, but maybe six hours of training may be done by training providers that are already being accredited. And instead of a certification, just a course completion certificate, and that would be the end of it.

That would be the extent of certification. There would be no application to the federal government or the state government. They would go. They would get training. And then we would rely upon primarily tips and complaints, trained contractors that observe non-trained contractors doing the work, as Ernie has seen in Massachusetts. That is a potentially viable scheme.

MR. LIVINGSTON: I move that this body moves that they start doing this, and put together some curriculum.

MR. CASEY: This is not a consensus process.

MR. LIVINGSTON: I understand that. HUD is working on a real simple version of the guidelines that could be used for part of the curriculum for this.

MR. HENSHALL: Dennis, did you see the five level thing?

MR. LIVINGSTON: Yes.

MR. HENSHALL: A document like that would form the basis for -- a document like that. Did you hear what I said? Not that document, would form the basis for some kind of training. I think EPA will, within the next year, begin and maybe even

finish a training course.

MR. LIVINGSTON: HUD is doing that.

MR. HENSHALL: And we're working with HUD. We, the federal government, will develop a training course that we will bless for renovation contractors. Now whether it be used in a full blown certification scheme, where you have to take the course and then get certified, or whether it be more voluntary, or some mix of that is kind of what we are here to talk about today, and then again in March.

MR. LIVINGSTON: Why don't we start with the voluntary. I don't want to wait until we have the debate. We can go ahead with the voluntary, and train thousands and thousands of people, and during that time see how it's going. Then in the context of that, make decisions as to whether certification is crucial.

But there are thousands of people being trained some places, and it is working. So we should learn from that, and go ahead and implement that other places, and see if it works other places.

MR. CASEY: There are three cards up, and you can keep them up and I will listen to you, but only if you are going to answer Heidi's question, because people have started making closing statements, and we'll have an opportunity to do that.

Remember, her question was in lieu of some post-activity testing, how would we feel about a notification about that?

MR. O'CONNOR: I personally believe it needs to be black or white. Being black or white meaning either we're going to require it, or not require it. To make

it a recommendation, the consumer has the option today to do it. I think making it a recommendation in a preamble to a regulation will only add confusion. I think it may -- and I'll defer to the painting contractors, but being a non-painting contractor, when things get recommendations, something that may be invoked after the contract is signed.

I think sometimes contractors, being that it's a recommendation, the consumer may impose the recommendation five days into the job. Or the day the final payment is due, they have chosen to follow the EPA's recommendation of a dust test. I think it is unfair to the contractor, and I think it's unfair to the consumer, because you are not being clear.

If you have a problem, then you ought to advise the consumer to test for it. If you do not think you have a problem, don't confuse the consumer, and don't have them test for it; black or white.

MR. FREEDMAN: This is going to be very quick, a note of personal experience. Last night I was involved in drafting a contract on a house for purchase, and my agent went to the 1018 disclosure discussion, and I said, gee -- because I had worked with this guy before -- have many of your clients have actually gone and gotten tested? He said absolutely none of them.

I think the comment was made that the 1018 rule may or may not be being followed. The more important point in my mind is the apathy on getting testing done is just deafening. People just aren't interested.

MS. TOHN: I think it has a lot of those problems. The only place where

I think it would have a potential is homeowners doing their own work. We all know that some of the worst lead poisoning cases are where individuals are working on their own homes, because the job is the living site, is the kitchen. This rule will do nothing for those people.

We do need to be telling people who are doing their own work that they should -- we would strongly recommend, because you can't require them of course -- that they do dust test at the end of the job when they take down containment. But that's a whole different set of mechanisms. That's not a federal regulation.

MS. BURGIO: And there are no training requirements for them.

MS. TOHN: Right. There are other ways of doing that, that I think are starting to pop up around the country, but that's where I think you actually could do some good, with something like that.

MR. CASEY: Okay, we're coming down the home stretch. Here is your opportunity to give passing sage advice. Take out a pen and paper. I want you to finish the sentence. All you have to do is write it. Then you're allowed to read whatever you wrote. The faster you write, the more you can say.

As EPA goes forward to begin developing the renovation and remodeling rule, one thing EPA should keep in mind is.

Nick, you were one of the first to finish, so why don't you read your sentence first? Oh, I'm sorry, before you do, only read what you wrote.

MR. FARR: Is education of contractors and consumers, and training of

contractors are the important objectives. And that inducements will probably be more effective than unenforceable mandates.

MS. ATKINS: Well, being from an organization called the National Conference of State Legislatures, I would say state legislators, if they have any hope or thoughts that the states might adopt these programs, legislators, far more than congressional representatives hear from their friends, neighbors, constituents, grocery store managers, et cetera daily. You could run into a lot of resistance if anything is perceived as being overreaching,

MR. CURRAN: Just keep it simple.

MS. VALLS: Education is key for effective implementation of anything, and it should be supported well into the future, not just at the start up of any rule. We need to development something that the states can also join in with.

MR. BULLIS: One size does not fit all, but making it all an extra large also creates problems. Keep it simple.

MR. LIVINGSTON: Without a short trades training given for and by tradespeople, including mostly demolition, nothing else will work.

MR. LEVITT: How the rule will be enforced and what the extent of its implications will be on existing regulatory requirements such as 1018, as well as the lead-based paint hazard control industry, and of course renovators, painters, and others engaged in these activities.

MR. O'CONNOR: Any activity which disturbs a painted, stained, or

shellacked surface could produce a lead-based paint hazard, however, regardless of activity, one who properly cleans up after themselves leaves the home safe for others. In short, a clean work area is a safe work area.

MR. DANIELS: Speak to contractors about the work really being done, to county and state officials about enforcement, and to real estate agents who sell homes and other properties. Finally, ask contractors and workers about what they think about more training. With this information, start rewriting.

MR. HARRINGTON: The scope of the regulation needs to focus on the more high risk activities, with appropriate work practices and training, performance-based, while still considering lower levels of education for the more modest exposure activities to insure that those work practices continue to be safe.

MR. FREEDMAN: It will be ignored unless it is digestible by people who are already confused, overwhelmed, and intimidated by all the other regulations out there, and that they can show a clear benefit to complying.

MR. NOLAN: The EPA should keep in mind that the market is not ready for it, and it will be ignored if it is not more practical than the current draft technical manual.

MS. AINELIA: I took a little different tack. Keep in mind they have the power to prevent children from getting lead poisoned.

MR. KELLY: To listen to all parties, but to recognize that especially at this early stage, that consensus may not always represent the best public policy approach.

MR. GOLDSTEIN: Target the problem, whether it be types of renovation activities, inner cities, et cetera, rather than cast a proverbial broad net, and don't discount education.

MR. RILOTA: Keep it simple, performance-based, focused on hazardous activities. Fine a simple, instantaneous clearance methodology, and provide outreach, outreach, outreach, and more outreach to the affected community.

MS. BURGIO: This may be an oxymoron, but EPA should keep in mind market-based solutions, create a demand through consumer education, create the supply by providing inexpensive and readily available training as soon as possible, preferably before June 1, 1999. And also providing financial incentives to remodelers and renovators, perhaps through lower insurance rates and other avenues, to get them excited about doing it right.

MS. TOHN: EPA should keep in mind that 402/404 is not the gospel. It doesn't work that well, and that our goal should be for behavior change in the most risky situations and activities. That behavior change can only happen if a rule is very focused in its scope, and has very limited self-enforcing requirements, which send the right message about what's important.

MR. NIX: I'm sorry, I was just kind of musing to myself. When we went clockwise, I was last. When we went counterclockwise, I was last. I'm not sure there is a message in that.

To keep in mind is the desired result of the rule is an increase in

protection of children and non-owners from the effects of renovation and remodeling work.

MR. CASEY: Mike and Mark, do you want to have any last comments?

MR. HENSHALL: All I really want to do is thank everybody for taking the time to come. I realize that it's increasingly difficult to get a roomful of this many knowledgeable, qualified, outspoken people to spend an entire day not at their real jobs, and helping us do our job. So I just want to tell you I appreciate everyone's contribution.

We, going into this, didn't really know what we were going to get out of this, but I think we all had a pretty good idea we were going to get something good, and I think we have. We really appreciate this. I hope that when we see everybody again in February/March, March/April, whenever it's going to be, that we have something that reflects a lot of the ideas here.

I think Ernie's point is a good one, that what may seem like a good idea coming out of today, we may go back and decide isn't a good idea or is a good idea. So I think we've got a lot of work ahead of us, but you guys have gotten us off to a tremendous start. I just want to tell you again, I appreciate it. I know Mike appreciates it. It makes our life a lot easier, because sometimes we go a little crazy just talking to each other. It's good to get out and hear other people's views.

So thank you very much. We'll be in touch.

Do we have plans in distributing the transcript? Are we going to get anything else out to folks?

MR. WILSON: I would expect in week or so we'll be sending out transcripts.

MR. HENSHALL: Super. And you'll hear from us after the new year in preparation for another meeting in the February/March time frame.

MS. BURGIO: I just my question is we all kind of thought to ourselves was it worth the day's effort to talk and hash out issues. I guess my question is to what extent does our participation play into your rules?

MR. HENSHALL: This is enormous. Everything we do from today forward has to reflect what we heard today. We can ignore some things I think, or we can sort of pick between opposing viewpoints, but we proceed at our peril I think if we don't try and incorporate as much of what we heard today.

Because you all are here. You all remember what you said, and we're all going to get called on it. When we move forward, there is going to be a transcript of this. That will be in docket for the rule, that kind of thing. There are certainly some litigious folks in the audience.

MS. BURGIO: I'm curious if I'm going to come back in February and rant and rave again.

MR. HENSHALL: You might, because it may not reflect your personal opinions. And because we're not here to get a consensus. We're going to sort of pick and choose what we think are the best things. Obviously, not all ideas are good, and not all ideas are bad. So we're going to have to try and sort through within the constraints that

we have, and try and write a rule that fulfills all the things that people put out here today.

MR. FREEDMAN: On a scale of 1 to 10, 10 being absolutely locked in, one being you can go your own way, how much does the structure of the abatement rule that came out of the legislation constrain you?

MR. HENSHALL: I don't know. My attorney didn't come today, and I don't know what happened.

MR. FREEDMAN: In my mind that's the hard question you're going to have.

MR. HENSHALL: But if you look at the statute, the statute is pretty clear. You are familiar with it. It says amend the existing 402 rule. So what we have to do, and I was trying to answer Dennis' question carefully, because I can envision a scheme where we take the best parts of that.

Where I think the accreditation system works good, I think that the accredited training providers in this country are a resource we have to take advantage of. If we could move training into that scheme, I think that we've got a resource we should take advantage of, but putting a certification scheme in place may not make sense to this industry.

That was why we were getting at this question of how do you enforce compliance and deal with Pat and Dean's concerns over clearance without certifying people? That's the rub. That's the question we're going to have to face.

So I think we are constrained to some degree. What I don't want to be

constrained by is laziness. I don't want us to be in a position of well, that's all we know. We wrote the 402 rule. Let's just write something that is similar, and just replace "abatement" with "renovation." I want to try and be as open-ended as possible.

MR. RILOTA: I think Marc made a very good remark, right on target, talking about the parameters that we have to play by. How much are we constricted into doing A versus B within Title X? You need to have that spelled out if we are going to have an effective meeting next time. Obviously, if we are constricted to using in the example you mentioned about certified training providers, then let's not even talk about any alternatives.

MR. HENSHALL: I'm not saying that we are. I'm a big fan of accredited trainers.

MR. RILOTA: But I'm just saying that if we have any of those constraints, I think maybe at the next meeting we should have an EPA attorney here to outline how far we go, how much flexibility is in the title so the meeting is effective. We're not talking about things that you can't implement.

MR. HENSHALL: That's a point well taken, but we did not want -- we tried not to have today's meeting constrained by anything. I think at this point we are trying to be as open-ended as possible.

MR. RILOTA: You are presuming that you have ultimate flexibility then.

MR. HENSHALL: I'm presuming that if there are really good ideas, that we could try and make them work. If they get shot down -- but I wanted to try and be as

unconstrained today as possible.

MR. RILOTA: One more thing. Not to make your life a little bit tougher than it already is here, but do we have any -- would you ask for any feedback, or could we provide you with any feedback on the next agenda? You will send an agenda for the next meeting, and we can have the opportunity to talk? Maybe you send some things to us?

MR. HENSHALL: Sure.

MR. O'CONNOR: Just a quick hypothetical question if you could. With the renovation and remodeling study that was done, and from reading and then hearing it this morning, it's really done in real world conditions and lets contractors go do what they were going to go do. But if the study was redone, and at the end of the day or prior to that actually happening the contractors were told how to clean up after themselves, and at the end of the day, when all the studies were done, the lead dust levels on the floor were 10, 20 on window sills, and 20 in window wells, how much would EPA feel they would need to regulate the renovation and remodeling industry?

MR. HENSHALL: If we are going to talk in hypotheticals --

MR. O'CONNOR: It is hypothetical. I know you're not here with your attorney.

MR. HENSHALL: Hypothetically, the concern comes down to what Rich has noted, which is lazy contractors. Do we need a check on that. I think Rich's point was right on about one of the unrecognized uses of clearance, which is to train

contractors. Dave Jacobs speaks rather eloquently about this, about trying to achieve clearance, and over time trying to get contractors to realize that you are trying to clean up stuff that you really can't see.

So I just don't know if we'll ever get to a world where we're going to have contractors achieving those kinds of efficiencies without some sort of check on their work.

MR. O'CONNOR: Hypothetically, if the study had resulted in those levels, would we really be having this discussion today?

MR. HENSHALL: If we didn't have kids that were poisoned, I don't think we'd be having this -- from renovation.

MR. FREEDMAN: I think the answer lies in legislation.

MS. TOHN: The statute says look and see if there are hazards, then based on that, regulate. If they had found no hazards, then they wouldn't be here, right?

MR. HENSHALL: I think that there is a significant public health risk posed by some renovations. I think that there is a need for not just this rule though. I think that there is a need for a lot of other things.

MS. TOHN: I guess my question is I think you heard a lot early in the morning in particular that it was very hard to evaluate certain things, because you didn't know the scope of rule. David and others said that it's hard to evaluate clearance unless you could figure out who clearance would apply to. I think you got a lot of feedback on scope.

As I think about responding to different elements about what would really be in a rule, it's impossible as Nick pointed out, to figure out how you feel about them unless you know who you are intending to apply them to. So whatever that matrix is, but it has both sides of it in terms of who and what.

MR. WILSON: We're still early in the process. We don't have a draft rule at this time.

MS. TOHN: No, I'm saying before the next meeting. If you want to get reaction on the what, you have to be able to lay out better options on the who. I think you heard that pretty clearly today.

MR. WILSON: The goal of today's meeting was to talk about the who, and then based on that, we move on to a regulatory outline, which we will take a look at, at the next meeting. I know it would have been more helpful to do both at one time, but we can't work that far ahead.

MS. TOHN: I have no bones about what happened. I'm just saying for the future, if the whos and the whats are identified clearly, then you can be more articulate in responding to different permutations of whos and whats.

MR. NOLAN: Mark, you said that you believe that renovation and remodeling is dangerous when children are involved. I still don't see those facts. Richard, you mentioned it, and it could be a valid point. We need to see more of these facts. For painting contractors to believe any of this stuff, they need to see facts.

Second of all, they need to see what elevated blood lead levels do to

children when they are short-term. In other words, let's just say I'm a sloppy contractor. I renovate your house. You get your children's blood lead levels tested. They are elevated 10, 20, 30. It is my understanding that after a period of time the blood levels go down again. The situation is remediated. It's cleaned up. What damage is there?

We just need to see those facts. I'm not denying that they are there. I'm just saying that for anybody to believe any of this stuff isn't just made up, they need to see facts.

MR. HENSHALL: That's probably a shortcoming on all -- because I think most people in this room have a pretty firm -- those sort of discussions occurred years ago for a lot of us. So I think you're right, maybe we do need to do a bit more remedial education for some people.

MR. NOLAN: For the people doing the work.

MR. HENSHALL: So thank you very much. Thanks for these parting shots. This is all useful, and I hope to see you real soon.

[Whereupon, the meet was recessed at 4:28 p.m.]