UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 5

EPA Proposed Cleanup Plan for Neighborhood Site

South Minneapolis Residential Soil Contamination Site

Minneapolis, Minnesota

YWCA of Minneapolis
2121 East Lake Street
18 Lake Boulevard NW
Minneapolis, Minnesota

Met, pursuant to Notice, at 6:30 in the evening on June 11, 2008.

REPORTER: Janice Dickman, RPR

APPEARANCES:

BOB PAULSON, Hearing Officer, Community Involvement Coordinator, EPA Region 5, 77 West Jackson Boulevard, Chicago, Illinois 60604.

TIM PRENDIVILLE, Remedial Project Manager, EPA Region 5, 77 West Jackson Boulevard, Chicago, Illinois 60604.

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WHEREUPON, the following proceedings were duly had and entered of record, to wit:

MR. PAULSON: Hello and good afternoon -- or good evening. My name is Bob Paulson, I work with the U.S. EPA in Chicago. Does everybody have an agenda? Or at least an overview of what's going to be presented? Does anybody not? I guess I should say it that way.

What do you need, sir?

UNIDENTIFIED SPEAKER: An agenda. I just got my letter and this one (indicating). Is this all I need?

MR. PRENDIVILLE: On the table out there. Dave, would you bring this man a proposed plan and an agenda, if you have one out there?

Anybody else need one?

MR. PAULSON: All right. All right. Well, then what we'll do is we'll go right down the agenda.

Again, I'm Bob Paulson. I'll talk a little bit about the Superfund process; very little in this case.

Tim Prendiville, which is right over here, off to my left, he is the remedial project manager. He'll go through the site. As you can see, he's going to talk to you about the background and then the alternative explanation of what we got

here, what we want to do, the proposed plan.

Very short, if you would, a very short Q and A. We'll take a little bit of a break and then we'll have the speakers. The first speakers will be the elected and appointed officials of local or federal. After them there will be the citizens.

Now, part of the proposed plan, the investigations have begun on this. It's called remedial investigation. And what that really does, it tells us kind of what's out there and to what extent the contaminant is and how it's going to impact people.

At the same time we have a feasibility study. A feasibility study gives us the basic outline, some ideas on how we're going to clean it up. Okay? That's been done. Now we're in a proposed plan. A proposed plan means that a group of individuals, Tim being one, came up with ideas on how we're going to clean up this site because this site is now part of a Superfund process. It rated high enough on a scale to become a Superfunding site.

The proposed plan has one important part that is up to you, and that's for the citizens. You have an opportunity, if you want to, to comment on

this site, to comment on our ideas on how to clean it up. Comment on anything, really, but we would like to you keep you on the site until I think it's 1 -- 1 July?

MR. PRENDIVILLE: Yes.

MR. PAULSON: 1 July. Presently, that means you can comment tonight and our court reporter will take down your comments. You can comment us via e-mail. You can comment to us via letter. And our addresses are on the paperwork that you have. If you want to comment a couple times, by all means do so. Now, if you are going to talk tonight, a couple requests on my part: Number one, speak plainly. When you stand up -- and I have your names out there, so I'll try to pronounce them, and if I mangle it, please forgive me. But, say your name, and would you spell it? Because we do have a court reporter and she wants to get it right. Also, when you talk, remember, this is a closed room, a little noise over here, we have to be able to hear. All right?

Lastly, if you speak, be kind to each other. All right? And perhaps just keep your comments right to the site.

Any questions so far?

I think there's some chairs over here, sir.

Tim, if you would.

MR. PRENDIVILLE: Sure. Like Bob said, we're primarily here tonight to get your comments on this proposed plan. What I want to do briefly, maybe about 30 minutes, is go through what we've learned through all the investigations we've done at the site and then go over some of the alternatives that we've looked at to clean this up, and discuss the rationale for why we're proposing what we're proposing for the cleanup.

This basically just outlines the process we go through to get to a final cleanup at the site. We've gone all the way through the feasibility study. We're here at the proposed plan public comment period. The next step is to take your comments from tonight or those you submit to us in writing, consider those comments and issue the decision. It's a decision the EPA puts together, final decision on what the cleanup plan will be, then we can do a design of the project, figure out how this thing is going to get built.

Then what we need to do while we're doing the design, we need to go to EPA headquarters and

request the funding for the cleanup of the project. We can't do that until we know what that's actually going to cost and get that through the design process. Once we get the funding, we can move forward with the remedial action. We hope to get all that done and start action by next year. But once again, we got to get through all these steps to get there.

Just a bit about what we know and about the cite through our investigations. So our understanding of the area we're talking about, our investigation has gone all the way from I-94 to the north to 35th Street to the south, 31st Avenue to the east and 10th Avenue to the south. The reason -- and, well, I should point out, too, that this all started with investigations at the CMC Lite Yard site at 20th and Hiawatha where they were manufacturing arsenic pesticides on the facility, and through the operations there some of the material they were using blew off, we believe blew off in the vicinity of the surrounding neighborhoods.

As the state began investigating that facility and the surrounding areas, they determined the problem was too large for their resources so

they came to the EPA, to initiate our investigation and figure out the extent of this problem out here.

One thing I need to point out about the work that Superfund is allowed to do in the cleanup here is that our cleanup is limited to what we can say is from the contamination that came from the CMC plant site. It's complicated because of the fact that arsenic can come from many different sources in the environment. It can come from plant sites like this, it can also be found naturally in the soils. Everyone's yard has arsenic in it naturally in the geology of the area. It can come from people applying pesticides or fertilizers to their yards in the past, historically have had arsenic in it. People could have brought dirt in from other areas that had arsenic in it to these properties.

Part of the problem with doing these investigations, trying to pull it all apart and figure what is and what isn't from the CMC plant site. The one way we tried to get a decision is we ran an air dispersion model which took what we knew about how the plant site operated and the material they were using out there, put that in a computer model, used wind direction, how the wind blows in this area throughout the year and figure how far the

material might have blown from the facility. And what it predicted is this blob, this kind of oval shaped area, it's about three-quarter of a mile out from the triangle property. We predict that that would have been the area that would have been impacted by the plant site.

Now, after we ran that model we went out and sampled every residential -- almost every residential property within that circle. It's about 3,500 properties. And we hoped that that would show some type of trend that would indicate what we were seeing out there was from the plant site and would indicate how far out we should have actually sample -- whether we should or should not continue sampling outside this area.

The one thing the model also predicted was that very close to this site, these darker red areas, that's where we would expect to see higher levels from the plant site and it would decrease as you moved away. That's indicative of any type of air dispersement scenario where you have source area, ground level stuff blowing off the site, the further out it gets the less concentrated it becomes. So you have lower levels the farther you move out.

When we sampled all these properties, all 3,500, this is what we found. The bottom is a distance from the facility, so plant site would be here, moving out to three-quarters of a mile out here, then you have concentrations going up this axis. (Indicating.) What we see is just a random scattering of concentrations across the entire area.

We do see kind of a clumping down here (indicating), and that's kind of around background levels in the area. Through our investigations we determined that background is around 16 parts per million within this three-quarter mile radius. But for the most part the really high levels, we weren't seeing a big decrease in the trend that we would have expected from a release from the facility. However, when we started pulling apart the data, we were able to find a decrease in trend only at very low levels, levels near background levels.

So that did indicate that there was some contribution from the facility, the surrounding area. It's just that it couldn't tell us where -- what all the higher levels were from. It was contributing something, just not all of it.

We did try to do some fingerprinting, of trying to get a chemical analysis to see if there

were other types of metals that were associated with some of the arsenic out there. Unfortunately, that wasn't able to tell us one way or another what was from what source.

So, we were basically left using this distribution, along with our statistical analysis of trend analysis of the data to indicate there was some contribution from the facility. That gave us a reason to take an action. As long as we could show there's some contribution from the facility, Superfund can take an action.

But it did indicate to us that there really wasn't any reason to step outside the circle that we've sampled, that there's other confounding factors out there that might be causing these high levels; most likely, like I mentioned, pesticide applications or another source could be coal dust from people. Historically, when people burned coal in their houses they might have tossed it out the backdoor, that could have some arsenic in it.

We determined that we would stop our sampling. We believe we've limited the area that might have been impacted by the facility to a three-quarter mile radius. We would stop investigating further out, but we would clean up

anything inside that circle posing unacceptable risk to people.

This is just a table just showing the number of properties we're talking about and the distribution of concentrations.

There were 197 properties that had levels above 95. Those were being cleaned up through our removal program, and those things have been going on for the last four years. There's about 34 left to do. We hope to complete those this year. There's still some administrative work that has to get done. They're hoping to get out there by July and start those up. Again, they hope to finish those up this year. But there's 411 that are between 25 and 95, 541 between 60 and 95, and then there's a whole bunch below 16. And again, 16 is what we consider to be the normal levels within this area.

MR. McCAULEY: Quick question. I'm a little confused by that graph. So the distinction between, like, 541 and 411, wouldn't that indicate that the 541 are less than 25? Otherwise they would be in the 411.

MR. PRENDIVILLE: No, it's inclusive. You have the 411, you have an additional 130 that have levels in that.

So again, just in conclusion, background is around 16 normal levels for the area and we believe the effects of the plant are limited to this three-quarter mile radius.

Again, I mentioned this, the higher levels don't appear to be totally due to air dispersion from the facility. There are other things affecting in the area, and I already mentioned those.

The next step, once we determined the extent of contamination at the site, we also had to go through a risk assessment to tell us how much risk is posed by the contamination we found and whether that's a high enough risk to justify an action.

The thing you need to understand in our risk -- in the Superfund's risk assessment processing is what we mean by an acceptable risk. When we talk about that we mean a maximum chance over a lifetime that there may be between one extra case of cancer in a group of 10,000 and one extra case of cancer in a group of 1 million.

So what that says is that we're talking about a range. Superfund doesn't specify a specific number you need to clean up to. It has a range of

risks that are acceptable. We need to decide what within that range you want to clean up to after you do an analysis of nine criteria we'll talk about in a minute.

But we're also talking about a maximum chance. We're trying to assure that, if anything, we're overestimating the risk at a site instead of underestimating. So we use the upper 95 percent numbers in our assumptions. So we don't -- we assume that someone is out in the yard every day, working in the yard as many days as the yard is available to work in. I forget how many days it was, 180, 150. And they're dealing with the same high levels of arsenic in that soil each day they're out there; they're getting it through their mouth each time they're out there, getting it in the digestive system.

For most people that's not true. An average person isn't out in their yard every day getting it in their system. They're also not exposed to this exact high level every day. So our risk assessment overestimates the risk to a person. But that's what we use to make decisions out there.

And also, these really are -- they're estimates of risk. They're not precise because we

have to assume certain things and those assumptions have certain uncertainty factors associated with that. So they're estimates of estimates, basically. So you're not going to get a precise number of what your exact risk is on this, but you're going to get a really good idea in these calculations.

The types of things that can affect the accuracy of the risk assessment, or tend to overestimate, in this case, the risk at this site, are a few things: One is the bioavailability of arsinic in the soil. In this case what we've assumed is that the arsinic you have in your soil is going to be 90 percent bioavailable. That means that your body can take up of 90 percent of what it gets into your digestive tract, takes it up and that will cause the problems in your system.

The reality is that number is probably extremely high. In most case when is you have a release like this that's been sitting in the ground for 50 years, it has a chance to recombine with other minerals in the soil and that, therefore, becomes less -- your body is less able to take that up after it's recombined with some of those numbers. So we could have used a lower number in the risk assessment for bioavailability, but we don't have

specific site numbers for that, so we assume the 90 percent.

Another is the time of exposure. Generally in Superfund sites for risk assessment we assume someone is living in a property for 30 years and exposed to the contamination for 30 years. In this site there were a couple people that commented during the risk assessment process we should perhaps use 50 years because there are some people who live in a property a bit longer, they move to a different property in the same area, so we should assume 50 years. But using that higher number of time, that increases -- can potentially overestimate the risk for a lot of people by almost a half or a third. So those tend to cause the risk assessment to be higher than it normally would.

One way to judge how accurate the -- that estimate is is, looking at the maximum risk versus an average risk. So we run a scenario using all those high level numbers and calculate the numbers. We use that for a decision. But we also run a scenario where we look at an average person who's not out there every day, not exposed to the same high levels every day, and that gives us something to compare them to to see how realistic that maximum

level is.

This table is mainly here just to show that, you know, we do have a high enough risk out here to justify an action. We looked at different concentrations we detected at the site. There was background we looked at, we looked at the 95 part per million level and we looked at the 500 parts per million, which is at the upper end of what we detected on the property out there. We also looked at children, adults that lived on the property that eat garden vegetables. We looked at people that don't eat garden vegetables on the property, and a construction worker.

I don't know what color that looks like to everybody, yellow, green, whatever, these are the ones outside our risk range. They have a risk higher than 1 in 10,000. So if you have 500 parts per million you may a risk of 2 in 1,000 of getting cancer. So these are outside the risk and they justify us taking action.

We then have to turn that around and say okay, you know there's high risk at these levels. What is an acceptable level at the site or what levels are within EPA's risk range? And this is what we've come up with: It's the two ends of the

risk range, the 1 in 10,000 and the 1 in a million and numbers in between. You'll see that the background concentration of 16 parts per million has a risk level of 6 in 100,000. You can also say that's .6 in 10,000 to compare the 25 to the 16.

They have to mention here, too, that in Superfund, in the EPA, or most cleanup programs, the program is not going to clean up a low background. Doesn't make sense to clean up an area where the area outside of that is going to have just as high levels. So we're not going to clean up the low background.

This is -- the central tendency exposure is the average exposure that was talked about that we can use to compare to see how realistic that risk is to these numbers up here. So you can see that an average person, instead of the maximum exposure, an average person could be exposed to a 119 parts per million and have a risk of 1 in 10,000. So that kind of indicates that that 25 number is really an overestimation of the risk out there. Gives us some way to measure that.

MR. McCAULEY: Could I just ask, you're assuming dirty vegetables, right? Because the vegetables don't actually contain arsenic

themselves.

MR. PRENDIVILLE: The risk was on arsenic in the vegetable. I can't recall if it included dust. It did? It included dust on the vegetables. It included dust and arsinic taken up by the plant.

MR. McCAULEY: So plants will take up arsinic?

MR. PRENDIVILLE: At low levels. This kind of tells you what -- it gives that issue. We try to determine, you know, which way posed the most risk to people, how you would get the arsenic into your system. And you'll see the ingestion of just soil contributes about two-thirds of the risk to you on your property. A quarter of that risk might be from eating garden vegetables that have taken up the arsenic into the plant. And then there's absorbing it through the skin, getting the dirt on your skin and arsenic absorbed through the skin, and 1 in 2,000 dust inhalation.

So there is some risk, but it's overridden by what you could get dirt into your mouth, not just eating vegetables. What we're trying to point out with this is that whatever cleanup we do out here, it takes care of the ingestion pathway, the dirt not getting into your

mouth. That addresses two-thirds of the risk, and would be fine. But in doing that you're also taking care of these other risk pathways. So you're getting rid of the contaminated dirt that the plants might be absorbing the arsenic from, so you're actually addressing all these risk pathways.

Okay. So we know we have a risk, we know what an acceptable risk -- acceptable number might be for a cleanup, we have the range between 16 and 25. We then want to take all that and put that together in different cleanup options and evaluate those against each other to figure out which one might be the best one to use out here. We looked at six cleanup options, and I'll get to them all together -- or, specifically here.

We're required to include the no action alternative in any analysis. Normally if you weren't required to do that, it would drop out in the early screening process. It wouldn't carry forward. But the rules require us to carry this through so we have a baseline to compare all of the cleanup options against. So that's just there. It doesn't mean we're even thinking of selecting that, but it's there as a basis of comparison for the other alternatives.

Alternatives 2A and 2B are really what's been going on with the removal actions out there. It's just using a different cleanup standard. Instead of the 95 we've used, we've gone out and will have cleaned up all the properties that have been above 95. Under this alternative, under 2A, we've used 25 parts per million for the cleanup standard. Under 2B would be 16 parts per million for the cleanup standard.

So we'd go in if they had above those levels, we'd dig down 12 inches, we would take a sample from the base of the excavation. We've done that all along through this process to determine how much might be left behind at the bottom of the hole, and then just backfilled, regardless of what that concentration was, which is a little different than the removal action because they're just concerned about short-term risks. We have to deal with the long-term. Potentially that soil could come to the surface and people being exposed to it.

In this case, what this alternative does is that if at the base of the excavation that sample shows you're above either of these cleanup standards, we would look to put some type of institutional control on the property. What that

is, it's really an administrative tool to notify people that there might be contamination there and they should avoid it, should avoid coming in contact with it or take some actions to minimize the contact.

Examples are: One thing that the city put in place is the tenant notification process where the owners are required -- the landlord are required to disclose sampling result information to tenants. Another would be through the building permit process where we would say if someone went to apply for a building permit where it's going to be excavating on the property, they would be notified that there was a concentration at that depth and they should avoid it or take some action to minimize exposure to it.

Another is deed restriction where we actually go to the individual property owner, seek to get some type of notice put on their deed that would say that they wouldn't dig on the property.

We don't know which ones we would put on it. It may be a combination of all of these types of things. It all depends on the number of properties that eventually need these things before we could figure out which type would be best suited

for the process.

MR. PAULSON: Sir?

UNIDENTIFIED SPEAKER: Would there be a compensation to property owners if these restrictions went on it --

MR. PRENDIVILLE: No.

UNIDENTIFIED SPEAKER: -- impairing the value of their property?

MR. PRENDIVILLE: We have different alternatives. That's just a couple alternatives that have that.

Okay. Alternative 3A and 3B kind of get at that issue, people not wanting these type of things on their properties. In this case it's similar, except when you get to the base of the excavation and take that sample, if you're above that 25 or 16, we would keep digging until we got a sample that came back clean.

So in that case if you were able to dig as deep as you needed to go to get everything out, you wouldn't need the institutional controls in place. We include that in these alternatives because there may be situations where either someone refused us access to dig and we believe we need to dig on the property to be protective of future

owners, or it could be cases where the property -- it's just not possible to dig that deep on the property.

These are some pretty old houses out there, some pretty fragile foundations and they're pretty narrow properties. In most cases it may be difficult to get below a couple feet beneath the surface. And if we're -- if we continue digging and keep seeing concentrations going down to foundation, you really risk some potential damage to the property. So in those cases we might decide to dig down a foot or two and just stop there to avoid any additional damage to the property. It would be on a case by case basis, determining when you would be able to do that.

Yes, ma'am?

MS. GLAD: How do you determine what part of the property the soil is removed?

MR. PRENDIVILLE: We have generally two sample results from each property; a sample from the front and the back. It's based on that one sample result. If that sample from the front is high, we would dig up the entire property. There are cases where people might want to save a garden or something, it's possible we could go in and do some

more localized sampling. But generally it's based on that one sample.

MS. GLAD: I have a side yard that wasn't sampled.

MR. PRENDIVILLE: How big is it?

MS. GLAD: A pretty large portion of the yard.

MR. PRENDIVILLE: So you only have two results?

MS. GLAD: Um-hum.

MR. PRENDIVILLE: We'll have to talk about that. We are coming out to do some additional sampling in a couple weeks. There are some properties we didn't get access to the first time. And if that's the situation, we can always come by and sample it.

If you want to say your name, she would prefer to get your name. The names are important for the public comment part of this. So, do you have a question, ma'am?

MS. GLAD: I name is Jullonne, J-U-L-L-O-N-N-E. Glad, G-L-A-D.

My question is: Several of my neighbors had -- were found to have high concentrations. In fact, one of them is in the pink circle, 95 parts

per million, 60 to 95. I'm wondering, for the property immediately adjacent to them it's showing between 0 and 10 parts per million. And that's confusing to me. And I'm wondering, you do additional sampling then, rather than just the two samples? Like if my neighbor Jerry Bell, for instance, he had his entire lawn excavated because he was one of the 60 to 95s. Are the people immediately to the right or to the left of them, do we have additional sampling, other than those two?

MR. PRENDIVILLE: We did that on a couple properties and found -- in those cases it stopped right at the edge -- the fence line, which gets back to why we think some of this -- a lot of this might be due from other sources, like people applying stuff to their yards, and not all from the plant site. It could be that the neighbor did some yard work and replaced their dirt so that one is cleaner than the one with the high levels. But we just have no way of telling --

UNIDENTIFIED SPEAKER: You didn't do additional sampling?

MR. PRENDIVILLE: We had 3,500 properties, sampling two samples per property. That gives us a good way of determining the trends and

what may or may not be happening around here. So we didn't need to go do the individual properties. It shows us that there really is a scattered -- a scattered distribution that's really high levels. There's no predicting what's going to happen from one property to the next.

UNIDENTIFIED SPEAKER: It seems rather suspicious that you would have that level of concentration immediately adjacent to 0 to 10.

MR. PRENDIVILLE: Right. That's been the biggest issue on this project, is trying to figure out why that is. We haven't been able to do that.

MR. PAULSON: You have another question, if you want?

MS. HOLDEN: My name is Paula Holden. And I was just wondering if there's any reason to question the testing method, because on that chart where you showed how it was so dispersed, there weren't really patterns. I'm just wondering if there's any reason to question the efficacy of the testing method.

MR. PRENDIVILLE: We did studies of the sampling methodology, compared results. We didn't find any real big variability between samples. I think we did some split samples. We also did some

statistical analysis sample results. It's all in the repository. But we're confident in the results we're getting from these properties.

Yes, ma'am.

MS. REIS: Just to follow up then. My name is Martha. My last in Reis, that's R-E-I-S.

So if you're confident in your methods, then I guess my question is: Doesn't your finding suggest that there's some either unknown issue or combination of factors at work that might apply? So there may be people who live half a mile away and scattered beyond and we won't know where until every property is tested.

MR. PRENDIVILLE: That may be true, but again, Superfund is limited to dealing with what may be released from a specific source. So we can't go out and just sample for general issues. That may be another program that may or may not be out there. But Superfund --

MS. REIS: But does is it not raise a sort of public safety issue that should at least be on the public radar, that there's potentially a risk for people, perhaps not only in this metropolitan area, but wherever they have fill added or fertilizers? It seems to me you may have come onto

something that deserves much more serious attention.

MR. PRENDIVILLE: That certainly might be, but I can only address things in regards to the Superfund program and what our limitations are.

MS. REIS: But given your concern for public safety, doesn't it make sense for at least the word -- the issue to be briefed more generally?

MR. PRENDIVILLE: That's beyond me. I mean, that's -- high levels, people are certainly aware of this. The agencies are aware of it and that's -- that's not for me to decide that. I can only talk to you about what this specific Superfund project can address.

MS. REIS: Okay. So, but just -- my --

MR. PRENDIVILLE: That's certainly a discussion that could be had with other people.

MS. REIS: Who would those other people be?

MR. PRENDIVILLE: That's beyond the scope of this specific meeting and this site cleaning.

MS. REIS: Okay. That's a good way to keep the issue sort of under wraps and not attend to it, you know, more generally, it seems to me. I mean, if the concern of the EPA is public safety, I would think you would at least want to release a

general statement that says, you know, people in Minneapolis should know that there was no -- not just the people who live right in the vicinity, but to let everybody know, you know, that, you know, maybe there's -- there could potentially be a problem on your property.

MR. PRENDIVILLE: In regards to this site, we've gone out and mailed stuff going out a mile from this site to let people know what's going on here. So in regards to this, we have stepped outside the area we're dealing with. Again, that's not -- I --

MS. REIS: I'm not saying the EPA --

MR. PRENDIVILLE: You can certainly raise that to other agencies or other people within the agency. I just can't tell you. Right now that is not within the scope of this program to do that.

MS. REIS: Right. I understand it's not within the scope, but I'm just speaking of somebody who cares about the earth and my neighbors. So that's my statement then for the record.

MR. PRENDIVILLE: Thank you.

Okay. Alternative 2C, it's the one we're proposing. It's kind of a middle-of-the-road between the alternative 2A and 2B and 3A and 3B.

Under this alternative we would go down, dig down 12 inches on any property that had levels above 25 parts per million. You would pull that sample from the base excavation. Only if the result was above 95 would we continue digging on the property. And then if there were cases where we couldn't dig deep to meet that 95 parts per million standard or we didn't have access to the property, we would again seek institutional controls on the property.

And I'll talk at the end about why we think 95 is an appropriate number to use in this case. I just want to get through the overall analysis, the alternatives against each other. But I will get back to that. I'm sure there's questions about why we're proposing that different number.

The way we decide what cleanup plan to use is we're required to use -- evaluate each alternative against nine criteria. And there's three groups of criteria. I'll go through each of the three groups.

The first group, overall protection, cleaning out the environment in compliance with applicable or relevant and appropriate requirements. This is a threshold criteria. If an alternative

doesn't meet these requirements, you can't say it's protective of human health and the environment. You can't say it does -- if it doesn't meet the laws or regulations that apply to the cleanup, they we can't carry that forward for analysis. And you can't select it as the final cleanup plan.

With that said, all the alternatives we've considered meet that criteria. They all -- we consider them all to be protective and they all meet all the regulations that apply to it. Other than the no action alternative, that doesn't meet these. But again, we're required to carry that through, regardless, as a baseline.

Where the things shake out with these alternatives is in the balancing criteria. The first criteria really gets at will this remedy remain protective over the long-term? If you build it will the levels stay protective or will somehow they re-bound and become high again in the future?

The second alternative really gets at is treatment part of the remedy? Congress has a preference for us to actually destroy the contaminates instead of moving them from one place to other and having to manage them. In these case none of the alternatives contain any real treatment

because it's not practical in this residential scenario. So that wasn't included as part of it. We did look at them, but it's really not practical in this situation.

Short-term effect looks at what types of risks are raised by actually carrying out this cleanup? Do we increase some type of risk? Are we -- is there a possibility of clouds of dust being kicked off a property and contaminating adjacent property while doing this? Is the truck traffic going to cause risk to residents in the area? Can we possibly damage properties as part of the cleanup?

The next one, implementability, is can we build this? Are there going to be administrative or other issues that come up with actually carrying out the cleanup plan down the road?

And the last one is cost. The dollar amount that the remedy's actually going to cost.

MR. McCAULEY: Can I ask a question here? In your --

MR. PRENDIVILLE: Can she have your name?

MR. McCAULEY: Steve McCauley, M-C-C-A-U-L-E-Y.

Is there any effort to kind of put a cost

benefit analysis on, for instance, the $18 million that this is going to cost and the improvement in health?

MR. PRENDIVILLE: There's no cost benefit analysis. There's cost effectiveness as part of the equation. The health issue, the whole risk assessment is folded in though this whole thing, how much risk reduction are you achieving through each of the alternatives? That's part of this whole evaluation, it's part of the long-term effectiveness issue and the short-term effectiveness. There's like -- they're all -- it's in there.

MR. McCAULEY: Okay. But there's never an effort to, like, say $18 million will buy this much health improvement, but 18 million spent another way -- I realize this isn't money that comes from a general fund, it's money dedicated for this purpose.

MR. PRENDIVILLE: We deal with that through the risk, how much risk reduction are you achieving through the alternatives. There's no measure right now. The health, people -- arsenic is a difficult thing to get at because the health related issues are so generic that they may or may not be caused by arsenic, it could be other issues.

But we -- the risk reduction is really what we're looking at, it's kind of getting at it.

The modifying criteria. These are just as important as the other ones, it's just that we can't evaluate these until the comment period is over. We have to get some idea of how you all feel about these alternatives. We do take them into consideration. Remedies can change based on public comment. So if you have a question or concern, please submit it to us and we'll certainly evaluate that. As part of the record or decision there's a responsiveness summary at the end of it which responds to the comments that are submitted as part of this whole discussion.

State acceptance is an equally important criteria, especially in this case because it's going to be the government paying for the cleanup out here. And the law requires that the state pay for 10 percent of the cleanup if the federal government is playing for it and if the state doesn't accept it and doesn't agree to pay the 10 percent, then the remedy doesn't go forward.

We have been cooperating, both agencies have been working together throughout this whole thing. We don't see any danger of that happening in

this case, but I want to let you know that's part of the equation.

One thing, this table, it's in the post plan, I want to point one thing about: This table, it evaluates the alternatives against each criteria and gives a grade to it, basically. There is no criteria for the numbers in the law. What we usually do is say it does meet the criteria, it doesn't meet the criteria, it may meet the criteria. We put numbers on it to give people a clear picture of how we're thinking about this thing. But if someone is looking for a grading scale in the regulations law, it's not out there. I want to make that clear.

I'm going to go through each of the criteria and talk about how we felt things worked out, but -- I'll go back. You'll notice that several of these criteria, like the treatment criteria, the compliance with applicable relevant requirements, they all grade the same, so I'm not really going to talk about those criteria. Just talk about the ones that really play a role in how we come to this proposal. And we can lump three of these criteria under cost effectiveness. These three play a major role in why we're proposing the

one we have. And implementability also places high on our list.

Cost is the easiest one to look at. Number 2A uses 25 parts per million for the cleanup number. Number 2B uses 16 parts per million for the cleanup number. So essentially you're looking at a $5 million difference going from 25 to 16. And that holds true when you go from 3A to 3B, it's a $5 million difference. 2C is in the middle; it's almost $18 million to do 2C. So you're -- what we're talking about is a $5 million difference in the cleanup, if you wanted to go to 16 instead of 25.

I want to point out, again, that both 25 and 16 are at the upper end of our risk range. And statistically, if you look at those numbers and the risks you're talking about, it's really hard to tell those risks apart. They're very close together. So you have to decides whether it's cost effective to go to -- try to get to that lower number at the cost of $5 million and the cost of the additional short-term risk to the public in the area. And that's really what is driving the proposal here.

That raises the short-term protectiveness issues and the risk that are caused to the

surrounding neighborhood.

I think he wants to give the presentation, which is fine with me.

We're talking about heavy trucks driving down small residential streets, we're talking about having to dig on narrow properties where older properties are present. On a few of the alternatives we are talking about having to dig as deep as we need to go to get rid of everything out there, and that presents risk to the public and workers on the site.

So we think the difference in the risk calculation for those numbers is kind of outweighed by these risks of -- the short-term risks. In addition -- well, just the number of properties we're talking about, and I'll explain. If you go down to 25, we're talking about 488 properties we would have to go to dig up. That's sort of an estimate because we still have some properties we need to sample.

2B would be 631 properties. 3A and 3B are 602 and 782. The difference in these numbers is that we've already completed 160 some cleanups on these removal properties. And we had taken those samples from the base excavations. Some of those

results from those properties did show they're above the cleanup standards in these alternatives. So we would have to go back to those properties and either seek to clean those up, we could sample those properties to try to narrow down what area may need to be cleaned up to reach these standards, or the owner may not want us to dig and we could just possibly have an institutional control placed on the property. So that's the difference, the number of properties you might have to go back to to address.

Part of the short-term effectiveness is the length of time needed to complete the cleanups. These are estimates. We haven't gotten through design. We can't say exactly how long it's going to take to get this done. But we think we can get all 488 under 2A and 2C done in four years. It would take two more years if we wanted to go down to 16 parts per million to finish that work.

It's kind of optimistic, the four years. To date I think removal is done about 60 properties per year. We think we can put more crews on this and try to get it done. But it's going to take a lot of coordination with people, getting enough access agreements signed and worked out to get that done that quickly.

Yes, ma'am.

UNIDENTIFIED SPEAKER: Four years from when? Like four years from the beginning of when this is implemented?

MR. PRENDIVILLE: Yes, yes. So we're hoping we can start next year, so it will take four years from then. To get everything in place will take four years. It's as fast as we can get there. It's a lot to get done. A lot of the work that needs to get done is actually getting people to sign up to get the work done on their property. That's a monumental effort when you're talking about 500 property owners. That's 500 people we got to sit down at the table and have discussions with about how the work is going to happen.

So -- another issue with the work out here is trying to find places to put your -- put the crews and put all the equipment to get this work done. It's a pretty congested area. Finding empty lots to store stuff is kind of difficult to do. So we got to work all that out.

Long-term effectiveness and permanence. On this we're kind of getting at the institution control issue. If you leave a contamination above the cleanup standard of the property, we would seek

to have an institutional control.

UNIDENTIFIED SPEAKER: What does that mean?

MR. PRENDIVILLE: Put a notice on the property saying there's levels of arsenic on the property above our cleanup standard and people should avoid digging into it and coming in contact with it. There's different versions, I think I explained before; there's deed restrictions, there's notices to the permitting process.

UNIDENTIFIED SPEAKER: Okay.

MR. PRENDIVILLE: They're common at Superfund sites. They can be difficult to implement and they can be difficult to maintain. The problem with putting a notice on a deed is properties change hands and people can change the notice and get rid of the notice willy-nilly. You try to get a legally binding notice on a property to make sure it's not changed, but they do take some work.

One thing I want to point out is that if there are those -- if those controls are necessary and if we are -- when we're done, if there are still levels above our cleanup standard on the site, we would be required to come back every five years and re-evaluate whether those are effective in

protecting people. The only time we would talk away and not have do that, it's called a five-year review, is if we got rid of everything out there and we were below the cleanup standard on every property. Part of that assessment is we have to evaluate the actual cleanup number. We have to re-evaluate whether that cleanup number is still protective every five years.

Under 2C, 3A and 3B, theoretically it removes all the contamination above the cleanup standards. Again, there could be situations where we just can't dig, it's not possible to dig without damaging -- significant damage to the structure, people who just do not provide access to it. So theoretically it gets rid of everything, but at least under these alternatives the number of properties that may require those are much smaller than under 2A and 2B.

Implementability. Again, this is a -- as the number of properties rises, the more difficult it gets to get access agreements to people, the more trouble you're going to wind up -- problems you're going to run into on digging on properties. So, it's just simple math. The more numbers of properties you got to work with, the harder it is to

implement.

Okay. I want to get into why we think 95 is the appropriate number to use for the deep soil and those alternatives as opposed to using the -- on the other alternatives you would use 25 and keep going down until you met 25. 95 was the number that has been used for the removal action. It's based on an acute level of what you might be exposed to in a short-term, as opposed to a long-term.

First off, the samples we have from the work we've done out there already, it's a small number of properties that would have levels above this. If this was air dispersion causing this problem, you really shouldn't be seeing high levels on a property unless you had high levels on the surface to begin with. So we would only expect to see this on properties that have removals done on it. If you had 25 parts per million at the surface you shouldn't be seeing 95 at depth. It's possible that would happen. We don't expect it to happen. So this should be limited to -- at this point there's about 30 properties that have levels above 95.

Yes, ma'am.

MS. MEDIN: Hi. My name is Kim Medin.

My yard was done last year. The numbers were over 100. Front yard was done. How do I know if underneath what was done is low enough so you're not going to come back because it's over 95.

MR. PRENDIVILLE: They should have provided you with the sample results. If they didn't, let me know and I'll have Sonia get back to you. I'll talk to everyone in this situation. We'll have letters going out and I will sit down and talk with everyone, talk about access, what we may or may not do and what you prefer to have happen on your property. So we're not going to do anything until we talk with people.

MS. KNOBLAUCH: I'm Beth Knoblauch. And I'm wondering about those who have 92 parts per million versus 17 parts per million. So my property is high, it's in the 70s.

MR. PRENDIVILLE: On the surface?

MS. KNOBLAUCH: Yeah. So I'm just wondering about what this process is going to be like as far as are we going to wait -- someone else is going to be doing their property at 17 parts per million?

MR. PRENDIVILLE: We have to get through the design process, and the biggest thing that's

going to play into how the work is timed is where we are provided access to the properties. What we don't want to have happen is having crews hop all over the place to do work because that will slow us down significantly in getting this whole thing done.

We would prefer if we had huge parts of this sampling area that had agreed to let the work get done so we could have crews working in one area for one period of time and then move to another area. That's going to play a big part in it. We just can't say at this point how that's all going to play out.

MS. GUESNARD: My name is Sue Guesnard. That's G-U-E-S-N-A-R-D. I would like to know how deep were your samples?

MR. PRENDIVILLE: We go down underneath the grass about three inches.

MS. GUESNARD: Just three inches?

MR. PRENDIVILLE: We did take -- we went to several properties and did deeper sampling, we took what's called Geoprobe. It pushes a rod going down about eight, ten feet, taking a sample every foot and analyze those. And we didn't -- what we found is generally the contamination was limited to the top two, three feet. We weren't seeing stuff

below that. But a lot of those samples were from properties that had low levels from the surface. We did sample from properties that had high levels. There might have been one sample that was elevated at depth, but for the most part it's pretty low when you get down.

MR. PAULSON: Tim?

MS. MEDIN: One more question. Kim Medin.

My neighbor's yard was also done last year. His back yard was 95 and they told him last year when they were doing the front yard that his backyard needed to be over 97, so they didn't do it at the same time. So he's kind of concerned, wondering what's going on.

MR. PRENDIVILLE: I don't think it would be 97. They would have had to have been above 95.

MS. MEDIN: His is 95.

MR. PRENDIVILLE: What they did is they cleaned up the part that was above 95. If it was between this 25 and 95 they didn't do that because it's not part of the decision for that part of the cleanup. They had to wait for this process. We're going to have to go back to those properties and address those that weren't cleaned up as part of

that.

MS. MEDIN: Okay.

MR. PRENDIVILLE: Yes, ma'am.

MS. GUESNARD: Again, we got a notice they're testing children. Are children going to be involved in the criteria about who's going to be done first or last?

MR. PRENDIVILLE: That's been raised before, and our thinking is that this is a pretty mobile neighborhood and to predict when a house might have children, might not have children, it's hard to do; there's tenants moving in and out. We're best off trying to deal with as many properties as we can at one time to get through this process as quick as we can. That's the best -- that's, you know, like I said, it's hard to predict which house is going to have a child and which one is not.

MR. McCAULEY: Steve McCauley. For people who are concerned about the more immediate threat who have young children, are there recommendations that the EPA offers for how to sort of, you know, reduce exposure? I mean, maintain your grass well or things like that?

MR. PRENDIVILLE: Yeah, it's stuff like

that. We have been mailing out a fact sheet from the Department of Health that explains basic things you can do to avoid contamination. And there are things that are recommended at sites in general of how to avoid soil contamination. That's out there. We have done that. We tried to do it on a twice a year. I don't know if we've done one this year or not. It is out there, we can -- it's on our web page. If you go to our web page it's there, it's on the state's web page.

Yes, ma'am.

MS. GLAD: Jullonne Glad. I would recommend that perhaps if there is those kind of intermediary preventions people can do, put that in the local neighborhood newspapers. The *Corcoran Neighborhood News* is really an affordable way to notify people in the community.

MR. PRENDIVILLE: We think through individual mailings to each house, I think that effectively does the same thing as the newspaper. We have put ads in newspapers throughout this cleanup process. So we try to get this message out as best we can. Word of mouth works good, too.

Yes, ma'am.

MS. BROAD: Debra Broad, B-R-O-A-D. On

that note, I have not been getting mailings. I have gone to meetings. Tim, I spoke with you, I think last summer. So I think her idea about putting it in the *Corcoran Newsletter* is an excellent one. I would like to see that happen. You know, that's being delivered to every door. That is someplace where people can access it. I've not been getting mailings. I'm not happy about that.

MR. PRENDIVILLE: Mail is an issue in this area. It's -- we try our best to get stuff out there. We don't know whether the mailings are just getting lost at the mail office or what, but we -- we do our best to update our mailing list when we get the information. I don't know what happens once it leaves our door and goes out to the public.

MS. GLAD: That's, again, what I would recommend. It's like $50 to run an ad in the neighborhood newspaper. It's so cheap. It's a great way to reach the community, it really is.

MR. PRENDIVILLE: Like I said, we have put ads in all the papers like that. I think *Corcoran* was one of them.

MR. PAULSON: I think so.

MR. PRENDIVILLE: Our information is put out there.

MR. SCHIFF: Gary Schiff, S-C-H-I-F-F. Tim, 2C appears to be, on page 9, the only option that includes deep soil removal; is that correct? Or is it just the only one that states it on this table?

MR. PRENDIVILLE: 2C, 3A and 3B all include deep soil excavations.

MR. SCHIFF: Okay. It's just worded differently for some reason.

MR. PRENDIVILLE: I guess.

MR. SCHIFF: Thanks.

MR. PAULSON: Did you have a question?

MS. SIDORFSKY: Emily Sidorfsky. S-I-D-O-R-F-S-K-Y. I'm actually one block off, I'm on 36th Street, so I don't want to wait to the end to ask you about that. It's kind of disturbing to me that everyone was being dug up last summer. We're one block away. Because I never got any mailings or notices, my one-year-old last year was ingesting -- because he was one, he was out there eating dirt last spring. Should I be concerned about that, considering how little his body is and he was eating it?

MR. PRENDIVILLE: You should be concerned, but it's not because -- because of the

contamination from this site. We're dealing with what might be within the surface sample. But there could be other things in your soil, even within this circle, stuff that we aren't testing for he could be exposed to by coming into contact from soil, such as lead-based paint, bacteria, other stuff in the soil. So I think it's a concern for any parent anywhere in the country that their kid is getting dirt into their mouth.

MS. SIDORFSKY: Right. So can I speak to that? My second question? Now or later? About, you know, are you going to expand it at all, like --

MR. PRENDIVILLE: No, I think we decided that we determined we identified the area that may have been impacted by this plant site and there's no plans to step outside this area.

MS. SIDORFSKY: Do you recommend that we just get tested on our own?

MR. PRENDIVILLE: It's an individual decision. We have instructions on how to do it on our web page, it's there. You can always call me, I can e-mail it to you, too. There are a lot of people out there like you that have called and we sent that to them. So it's certainly an option for you. It costs about 30 to 75 bucks to get a sample

analyzed. The thing I got to point out is that if you do find high levels, the EPA can't step in and clean it up because it wouldn't be a part of the Superfund.

MS. SIDORFSKY: Right. I want a brief comment, too, like the one that was made earlier, it does concern me that I'm an informed person, I read things, I watch the news. I was not aware of this whole situation. If I'd known, I would not -- I would have been, like, absolutely not let him eat any dirt.

But, you know, it just concerned me, like go for a walk, there's our neighbor's lawn is being dug up. That's how we found out about this. So I do think there is a lack of communication from the EPA.

MR. PRENDIVILLE: We're befuddled by that. We've tried every way we can to get the word out there; the mailings, the newspaper. It's been on television. We've been out here having meetings. So I don't know what else to do at this point to let people know.

MS. SIDORFSKY: Well, when you're one block off, I wasn't getting the official mailings.

MR. PRENDIVILLE: But we've sent mailings

going out a mile instead of a three-quarter mile. All the fact sheets you have tonight went out to 10,000 people, not just the 3,500 that we sampled. So, I don't know what to tell you. Again, unless the address is wrong in the database that we have, and that's really hard for us to verify 10,000 mailing addresses.

And I know for certain even when we're sending out access agreements to people, we can query the county's tax data base, the owner of the property, we write the letter, send it out, it comes back, tells us the address is wrong, the person no longer lives there. So in between the time we created the data base, the property was sold and is owned by someone else. So it's really hard to do the stuff. We try our best we can. All I can tell you is if you're not getting it, let us know so we can make sure it's on the data base.

MR. PAULSON: Tim, we had three questions. The lady, the gentleman, and then the gentleman. Please. Ma'am, you're first.

MS. NOLAN: My name is Katie Nolan. N-O-L-A-N. I was just wondering, I can't remember how you said the background level was determined, but if there is any idea of what the general

Minneapolis area is like? You know, I mean, you were talking about how the -- you know, different kinds of contamination can come from different places. And you know, is there a possibility that by coincidence this area got sampled and is showing things that could be found other places?

MR. PRENDIVILLE: Do you guys have background information to other parts of this state? Bob Anderson with the state. Do you have background information?

MR. ANDERSON: Bob Anderson. There's some data bases -- not data bases, but maps and things like this. There's information on state averages. I think that's based on county by county sampling. I think they just -- USGS study, that went across the country. So that's just about anywhere, there are places that have background levels that are higher than the cleanup.

MS. NOLAN: Well, I was wondering more about kind of the more immediate area, just for --

MR. PRENDIVILLE: We haven't sampled outside, like I said. We don't have plans to go outside this area.

MS. NOLAN: But there's no data from other agencies on that sort of thing?

MR. PRENDIVILLE: I haven't seen anything from Minneapolis. Like Bob said, there's stuff from the state in general.

MR. ANDERSON: It's that naturally occurring. It is everywhere, pretty much, and higher levels in a lot of areas.

MS. NOLAN: Is there a place that you can see that information or --

MR. PENA: There's a USGS study --

MR. PAULSON: You have to talk a little bit louder, sir.

MR. PENA: There's a USGS study that has what was done for Minnesota with a sample where they sample every county and then they put a map up to show it. It's one of the health conservations for the state. Okay.

MS. GLAD: Can I piggyback on her question? It's related.

MR. PRENDIVILLE: Go ahead.

MS. GLAD: My question is if you look at the slide, I think it's slide 7, the summary of properties per concentration range, where you had it broken down greater than or equal to, blah, blah, blah. Using those numbers, the median, which I would think as being the baseline, the median would

be 5 parts per million. I'm wondering how you got to 16 parts per million as opposed to 5?

MR. PRENDIVILLE: We looked at the distribution of arsenic concentrations. And I'm not a statistician, so it's hard for me. But basically they had a curve -- they took all the data and produced a curve that looked something like this. And -- but this type -- I forget the type of analysis. It's a cumulative distribution, I think. And what it shows is there's two distinct populations of data.

You have this section of the curve that shows one population, which might be -- might be background concentrations, then you have another section of the concentrations that look like it's affected by the plant site. So basically we're saying that background levels is where this curve changes direction and that's --

MS. GLAD: I've had lots of statistics classes and I take issue with that a little bit. It would be interesting to see that data.

MR. PRENDIVILLE: It's in the record, it's in the remedial investigation report that's in the repositories, it's online. Certainly, feel free to submit your comments and take a look at it. But

it's the best we can do to come up with the background concentration, especially when you have all these other mitigating factors of arsinic in the area. It's really difficult to get in that situation.

MS. GLAD: What is the name of that document?

MR. PRENDIVILLE: Remedial investigation report.

MR. PAULSON: Did you get to the gentleman's questions?

MR. McCAULEY: Quick question. I think, as I remember, my levels are about 30. And I'm actually interested in not having my yard excavated. So if I were to take an independent sample and it came out lower, is there any way to get a re-sampling or re-official --

MR. PRENDIVILLE: We are confident in our sample results. We have to make our decisions on data that's gathered through a specific quality, using certain quality of data. So we have to have what's called a quality assurance project plan in place. So accepting your data wouldn't be appropriate. We need to use our data to make the decision.

I got like three slides to get through on this.

MR. PAULSON: Could you answer the last question? Sir.

MR. GEISINGER: Maybe it would be better if I just let you go ahead and finish up.

MR. PAULSON: Thank you, sir.

MR. PRENDIVILLE: Back to why we think 95 should be used for the deeper soil here, not the shallow stuff. The people who are really going to be exposed to the deep contamination, below a foot, would be construction workers, they're the ones out there digging foundations, putting in sewer lines, gas lines and whatnot. And through our risk assessment we show they could be exposed to levels as high as 261 parts per million and still be protected.

But we went a step further and said there may be situations where an individual goes and puts a fence post in. They're going to dig that fence post and while they're digging it they might be exposed to that contamination, but after that they're going to be roaming around the rest of the yard. So it's going to, again, be an average concentration over the area.

So we think we should try to protect people against what they might be exposed to while they're actually doing that work, and we think that 95 parts per million would be an appropriate number to use to protect against that.

I forgot to mention one thing. When we do these cleanups, when we're done with digging, what we'll do is we'll put down -- we call it -- I think it's the next slide, but we do put down a -- we put down a high visibility barrier. Basically it's just an orange snow fence. It allows water to get through, but if someone were to dig in the property and they got down to that foot, they'd run into this thing and they would realize, hey, wait a minute, EPA was here, they did some work on the property, perhaps we should not dig any more or take precautions to minimize contact with the soil. So they will be aware there's something beneath that surface.

So that's one thing that mitigates whatever risk there might be to what's below there. And I think -- we still need to work this out, but I think we would put that down if there's anything above 25 beneath the surface, that would be in place.

The other thing is when someone were to go dig below that depth, they have to get through a foot of clean dirt on the property before they got to the contaminated stuff. And that would -- common sense is going to say that's going to be mixed together with the clean stuff and through dilution the concentration is going to decrease that they might be exposed to. And again, the only properties we're likely to find levels above that 95 or where the surface soils were above 95, those are the removal properties.

So this really, we think, is going to be limited to the 30 properties where removal is going to be done. There might be a few other properties. So it's going to be that small universe of properties where we may have something above 95 that will be left in place. Tom?

MR. FRAME: Tom Frame. With the cleanup goal down to 95 to dig, what's the frequency of the excavation? Doing the first 12 inches, you're still above 95, how much additional do you dig out before you sample it again?

MR. PRENDIVILLE: That hasn't been worked out, but basically it's a function of what equipment you're using to dig it up. If you're using big

equipment, it's basic 6 or 12 inches that come out at a time. If you're hand digging you can do less -- shorter intervals in the soil.

So, that's basically it. We think that on the basis of the weight of weighing all these criteria, each alternative against these criteria, we think that 2C is the most appropriate to use. We think that the risk reduction you achieve between 25 and 16 isn't significant to overcome the cost, just the cost in dollar figures, the cost in increased short-term risk to the people and the implementability issue of whether you could get everything out and how hard it would be to put institutional controls on all of the properties you would have to if you use those lower levels in cleaning this stuff up.

MR. McCAULEY: Can I make a quick comment also? The difference would also be the properties with higher levels would take longer to get to?

MR. PRENDIVILLE: Right. And in summary, this is it, we would go in -- I didn't mention that in garden areas we do dig down 18 inches instead of 12 because in garden areas people may tend to dig deeper in their planting material. So if you have a garden, we'll go down 18 inches instead of the 12.

We will continue digging, if anything is above 95, below a foot. The material then is shipped off to an off-site landfill for disposal.

Only if necessary would we have to put institutional controls on a property. Because once we determine we've either met the shallow soil or we found there were high levels at depth and we cleaned it up to 95, if we're below 95 at depth we can say we met the cleanup standard and institutional controls wouldn't be necessary.

We're estimating it would take four years to complete and about $18 million to --

MR. NOVAK: Tim, that lady with a question.

MS. GUESNARD: How do you determine where the gardens will be? I purchased my home and found out about this like two weeks later. So there's no gardens because I haven't done anything in two years because of this. So I would like to garden the majority of my yard and I'm wondering, what would you do?

MR. PRENDIVILLE: We would have to sit down with you about getting access.

MS. GUESNARD: So would that happen?

MR. PRENDIVILLE: Getting down 18? Yeah,

I guess I haven't really thought that all through. We're going to have to deal with it.

Okay. So we're here tonight to get your comments. You can mail your comments in to us. We'll consider those comments. We hope to get the record decision -- the final decision done this summer, hopefully end of August, maximum by the end of September it needs to get done. We will start the design -- actually, we have stuff for getting contracts in place to get the design started.

We, obviously, can't do the design until we know what the final cleanup plan is, but we'll get that done this fall and winter. We need to get to headquarters to request funding for this work by October of this year. It's possible if we miss that we could go to them in the spring. But we're much better off getting to them in October. And then if we get all that done and get all that access agreements work done with people and we could start this work in the spring or summer of next year.

And the public comment period is 30 days. It ends midnight July 1st. So anybody that's up late with e-mail can get us that stuff on July 1st.

You can -- Cheryl Allen is the primary contact for collecting all these comments. You can

mail them in snail mail, you can e-mail it to her, you can fax it to her. We have a web page with -- there's a mail box on there where you can write your comments and they will submit them to us. If you forget to mail it to her, if you send it to me, it will still be considered a comment. You can send it to Bob, send it to EPA. It's a public comment if it's submitted during that time period.

That's all I have to say.

MR. PAULSON: We'll start with the gentleman up front.

MR. GEISINGER: My name is Dennis Geisinger, G-E-I-S-I-N-G-E-R, and I'm here representing the *Southside Pride* community newspaper. And I think I asked this at the last meeting we had. I think I asked Cheryl about this. But I thought it was important enough I should ask again. Since this arsenic has been around in the neighborhoods for about 70, 75 years, something like that, has there been any attempt or will there be any attempt by the EPA or the state or the county or anybody to try to determine if there's been an elevated level of cancer or other diseases associated in the area here?

MR. PRENDIVILLE: The state is embarking

on a health study and they can probably speak to it better than I can.

MS. MESSING: I'm Rita Messing from the health department. We have a health consultation and we -- Dan knows more about this because he wrote it, but it has some data on cancer occurrence in this area. And if I'm remembering correctly, there were no elevations in cancers that could be attributed to arsenic exposures, but there were some elevated levels of some cancers. There were lower levels of other cancers, which is kind of what you would expect if you're looking at our discrete area because if you have an average, some people have to be above and some people have to be below.

So do you want to comment on that a little more?

MR. PENA: The other challenges are the base is such that it's not very reliable because the way the data is collected, it's reported based upon the death certificates and sometimes the death certificates are not accurate. In addition, you know, somebody can move here from someplace else where they were -- actually acquired some exposure to something or their lifestyle, and they show up here and then they get diagnosed as cancer -- having

cancer here.

MS. MESSING: So just to modify just a little bit what Dan said, it's actually based on where you were living or where the person is living when the cancer is diagnosed, rather than on death. But perfectly right, that it's where the cancer was diagnosed. And all these cancers have long latency periods, so you don't know where there might have been a relevant exposure.

The second question about the health study, there is a biomonitoring study that is going to be starting very, very soon and the idea is to measure arsenic levels in urine in 100 children in this neighborhood. And that will be happening in the next few months and there will be -- it will be arsenic levels in children living on properties above 20 parts per million.

MR. GEISINGER: What is the answer? That it can be attributed to arsenic exposure?

MS. MESSING: Bladder cancer, some lung cancers, skin cancers would be the main ones.

MR. PENA: There is clinical evidence of long-term exposure that shows up before that. Those would be very visible, they're -- it's called hyperpigmentation, where they get individuals -- we

know this from people being exposed to the arsenic in their drinking water in India and other places around the world, they get very large what appear to be like freckles on their torso, that's the hyperpigmentation, and the hyperkeratosis, those are the preliminary clinical signs of chronic exposure, is their hands and feet develop very thick callouses.

MS. MESSING: Those are people drinking really high quantities of arsenic in their drinking water.

MR. GEISINGER: What about other ailments? I understand there are some reproductive problems associated with arsenic.

MS. MESSING: I think the main effects, other than cancer, are neurological effects and cardiovascular effects. There is some evidence that is as yet -- somewhat more uncertain about developmental and reproductive effect.

MR. GEISINGER: But as far as the studies that have been done about incidents of disease or illness in the area concerned, there's been no elevated levels or anything unusual?

MS. MESSING: Well, the only disease that the health department surveils that is, you know,

that's relevant is cancer. So I couldn't tell you what the cardiovascular risk really is, for instance.

MR. PAULSON: Ma'am, you have a question? The lady.

MS. GUESNARD: Why is that test using urine and not hair samples? I thought hair samples were more accurate.

MS. MESSING: It's a little difficult for me to answer because I'm not the person who designed it. But the main reason was that it's easier to evaluate urine samples. And there's -- first of all, there's a budgetary issue. It was discussed whether we do both, and it was decided that we couldn't. The urine is there -- there are clearer bench marks for what a high urine level is than there is for hair. And hair, sometimes people don't like to give up enough hair, and hair has different qualities.

So, for instance, thick hair is more likely to have high levels of arsenic than thin hair. Hair color matters. There aren't any real standard protocols for measuring arsenic in hair. So should you wash the hair first or not wash it? And if you wash it, what would the protocol for

washing the hair be? How many rinses? You know, things like that. So it just got to be -- it was determined by the people who designed it that it was just -- it was just better to measure urine.

MR. PAULSON: Any other questions?

MS. ADELSMAN: A comment?

MR. PAULSON: Well, we'll get to the comments in just a second. This is a real short question and answer period, then we'll take comments.

MS. ADELSMAN: I have a question. In 2004 the Department of Health published a health consultation with ATSDR that said that 30 parts per million was an imminent and substantial threat to public health, but then in a document that was published in 2006 they reversed it to say that 95 parts per million was a level that was protective of public health. Why did that number change?

MS. MESSING: Dan and I are looking at each other. We don't recall ever making a statement that 30 parts per million is an imminent and substantial -- I don't remember what you said, risk or problem or whatever.

MS. ADELSMAN: It was a quote from ATSDR, from the health consultation.

MS. MESSING: You'll have to show it to us. We don't remember that statement. And Dan wrote that consultation.

MS. ADELSMAN: The ATSDR.

MS. MESSING: It was published by ATSDR?

MR. PAULSON: Do you have a date on that, ma'am?

MS. ADELSMAN: Yes. It was a letter that was written for public funding.

MS. MESSING: I remember that letter.

MR. PAULSON: Your name?

MS. ADELSMAN: Heidi Adelsman.

MS. MESSING: What the letter said was we thought 30 parts per million would be a protective cleanup level --

MS. ADELSMAN: Well, the letter said --

MS. MESSING: -- in that letter. Now EPA is proposing 25 parts per million. So that's what -- that's what I remember saying in that letter.

MS. ADELSMAN: It was a statement, is the way I understood it.

MS. MESSING: It was a statement. It was signed by Mark Johnson of ATSDR and myself.

MR. PAULSON: The lady up front.

MS. ESPINOZA: Rita, I think I might have

asked you about that for one of the stories that I was working on, and you told me it was a typographical error.

MS. MESSING: No, I don't think I said it was a typographical error. I just didn't remember it being in the letter. And I looked up the letter and there it is, and it is in the letter. I don't think it's a typo.

MS. ESPINOZA: I brought it into the office and I showed it to you, it did say imminent health. And I sat down with you and with --

MS. MESSING: Okay. Well, I don't -- I really don't remember that.

MR. PRENDIVILLE: I think one of the important things to remember --

MR. PAULSON: May I have your name, ma'am?

MS. ESPINOZA: My name is Amoar Espinoza.

MR. PRENDIVILLE: All that was done for the dual process and they don't have the luxury of having all the site specific risk assessment information we have for this remedial process. So they're making a decision based off the best informing available at the time.

MS. MESSING: That letter was written to

get the removal started, and in order to get that removal started we we had to make a statement about imminent, etcetera. But I don't think that statement applied to 30 parts per million. What I remember is the 30 parts per million was in there as something that could be considered as an appropriate cleanup.

MR. PAULSON: Just a moment, please. Please.

MS. ESPINOZA: First name is spelled A-M-O-A-R and my last name E-S-P-I-N-O-Z-A.

MR. PAULSON: Okay. I'm sorry for the intrusion.

MS. MESSING: That's okay. I'm finished.

MR. PAULSON: Okay. The gentleman and then the lady.

MR. SCHIFF: Gary Schiff. S-C-H-I-F-F. If 16 is the background and you're advocating for cleanup to 25, if I calculate this right from the chart on page 4, there's about 130 properties then left in a gap between background and the level of cleanup that is being advocated. It seems that you're only doing four-fifths of a cleanup job. Given the amount of money being spent, why not clean all the remaining properties and that would allow

this area to be cleaned up to background levels.

MR. PRENDIVILLE: Is that a question or a comment? I think my --

MR. SCHIFF: It's a question because I would like to know your answer.

MR. PRENDIVILLE: I think my whole discussion tonight was making our case for why we think 25 is more appropriate than 60. I think it's a weighing all those different criteria against each other with all these alternatives and we think that the difference in risk is small, it may not even exist because of all the assumptions that are used in the risk assessment, that the cost of that decrease in -- that risk reduction weighed against the short term risk that you're incurring, implementability issues, I think all weighs in favor of 25 parts per million as the cleanup standard.

MR. SCHIFF: By implement, when you're measuring implementing you're just talking about what's faster to do?

MR. PRENDIVILLE: No, you're -- again, you're going to wind up, if you're saying we should dig up everything above 25, take it down as far as we can, there are going to be questions about whether you can get on all these properties and

actually dig down that deep. So you're going to be left with institutional controls on all these properties and you're going to be doing that to properties where you don't necessarily need to do that to achieve an acceptable risk.

MR. SCHIFF: Just seems an automatic bias in your weighting, that the more thorough the cleanup job, the more difficult to implement, thus the less points it's going to be awarded.

MR. PRENDIVILLE: There's absolutely no bias. All these alternatives were weighed against each other and we came up with what we thought was the most effective.

MR. PAULSON: The lady and then you, sir.

MS. ADELSMAN: Heidi Adelsman. I believe Smiley's Clinic and the parking lot was cleaned up to 20 parts per million by the Minnesota Department of Agriculture. Why was a commercial site cleaned up to a lower level than what we're talking about cleaning up residential yards?

MR. ANDERSON: Bob Anderson, Department of Agriculture. The cleanup on the site was primarily done to protect the groundwater, so it was based on that.

MS. ADELSMAN: But nobody drinks the

groundwater.

MR. ANDERSON: It will protect the groundwater whether anyone is drinking it or not.

MR. PAULSON: Sir.

MR. JACOBSON: My name is Allen Jacobson.

MR. PAULSON: Speak louder, sir.

MR. JACOBSON: Allen, A-L-L-E-N. Jacobson, S-O-N. I was just wondering, for someone whose house scores below these levels and wants it excavated and is willing to sign whatever, is that a possibility?

MR. PRENDIVILLE: You would have to pay for the cleanup yourself. We couldn't pay for the cleanup.

MR. JACOBSON: Okay.

MR. PAULSON: Yes, ma'am.

MS. CLOUD: Karen Cloud. I have a question based on what you just said. Are you saying the groundwater over at Smiley's Clinic, how is that distinct from the groundwater all over?

MR. ANDERSON: That's where the release happened and that's where the groundwater is contaminated. The groundwater contamination pool was cleaned -- tied to the site itself, where the deepest excavation was done, and about, if I

remember right, about a block or two off site. So that is where the groundwater is contaminated, so that's why we tried to protect that area more.

MS. CLOUD: Well, that wasn't my main question. I guess I could ask him about that. One of the things that we've just established in this neighborhood is the need to look at cumulative health impact when we're looking at issues of environmental health, just establish that as state law.

I believe that what we're doing here with this, the risk I think is very single -- single focused, right? Only on arsenic? So when we try to understand what the health impact is, or how risky it is--I think this is something we talked about a little bit--we're only talking about in relationship to arsenic; is that right? Because of the relationship to the source?

MR. PRENDIVILLE: Right.

MS. CLOUD: But to really talk about -- to -- I guess to the public, you know, when we talk about risk, it seems to me in the interest of full disclosure we ought to say this is what we know from one single -- what we suspect, I guess, from one single contaminant, rather than we know that that

arsenic, on top of the childhood lead poisoning, on top of the other issues.

And I would say that we do have data from the Minnesota Department of Health that does establish health disparities in this neighborhood. Not by address, because that hasn't clearly been done, but we do know by communities, by communities of color. So we have very many American Indian people with disproportional diabetes, cardiovascular, other kinds of issues, and across all the different communities of color in this area, indigenous people.

So I guess I just want to say as we go down the road to understanding what we need to do for public health, isn't it important that we always point out that we're not really for sure about this because we're only taking one single contaminant here, and cumulative health impact is really -- most of us need to know for our families, really.

MR. PRENDIVILLE: I think that's been tried to get at with that mailing of how to avoid soil contamination to everyone. That handout is not specific to arsenic from this site. It's general to any contaminant in the soil. It explains how to avoid that contamination, minimize your risk.

MS. GLAD: I think maybe what she's saying, and I don't know that it's quite as clear, even though Karen was very eloquent, it's that when you reference when you norm something as far as the risk exposure 1 in 10,000, 5 in 10,000, that's being normed a reference upon a healthy person, not with existing conditions. Is that being referenced on a population of people who are already dealing with a lot of other issues, such as exposure to excessive pollution, particulate matter, traffic, or for lead contamination or from asthma, things like that? Is it referenced to be people who are in very good health to begin with, or is it referenced on people who live in this community?

MR. PRENDIVILLE: Let's let the risk people explain that.

MS. MESSING: That's -- what it is is an incremental cancer risk. It's an upper boundary estimate of the cancer risk. So the risk to anyone is unlikely to be above that risk level. And that would include the risk to people who may be sensitive in the population.

It's not really normed against anything. It's a calculated number that is extrapolated from,

in this case, from people in Taiwan who were exposed to contaminated drinking water. And one makes certain assumptions about how much water those people drank and what the actual level of arsenic was in the water, which is some uncertainty there, and then you extrapolate curves based on the responsive information that you have and you calculate on certainty around each of those points. And you calculate an up or down risk using -- assuming that people actually drink less water than they probably did, so that the risk would be higher. And, you know, you make certain assumptions like that. So it's a conservative estimate of cancer potential from arsinic.

Now, there are -- you could derive an even more conservative estimate. There are many different ways of doing these things, but it's generally considered to be a conservative estimate of cancer risk, conservative meaning it's likely to overestimate when EPA estimated exposures that people were likely to have from the soil. They also overestimated those exposures. They try to not underestimate them. So they used high estimates of soil exposure, you combine those two together and that's how they come up with their upper bound risk

numbers.

MR. PAULSON: The gentleman had a question.

MR. VanderVEEN: Doug VanderVeen. Last name, V-A-N-D-E-R-V-E-E-N. My neighbor had soil above 100 parts per million and was excavated. My yard is at 23. And what that tells me is that somewhere from my lot line, you know, on the one side of the house by him and, you know, my lot line on my other side of the house, I'm at nearly 100, you know, compared to the other side of the yard because you take samples from the four corners and the middle of the front yard.

So I don't know how anybody could convince me that at the fence line it's not 100 parts per million. And I have a three-year-old at home, plays in the yard all the time, plays where he decides to play in the yard and I'm left to -- how am I supposed to handle this? Is there a possibility to get my yard re-sampled to see if it is just two more parts per million up there to get redone? And because -- and what's the accuracy of your measurement; 23 plus or minus what?

MR. PRENDIVILLE: Plus or minus. We're confident that there was an analysis like that done,

it's in the remedial investigation report. We are confident in our results. What we're trying to deal with is an average exposure across your property. There's no way to sample every spec of dirt on a property. At some point you got to say how many samples are needed to make a decision on a section of property?

So we're concerned about you or your child playing across the entire front yard, making a decision based on that, their average exposure. So, and again, that 25 is an overestimation of the risk. Real risk is probably exposed to much higher levels. So we're not -- we have no plans to re-sample properties that we already have results like that on.

MR. VanderVEEN: If I sample next to my fence line and it's at 100 like my neighbor's, my yard has 100 and, therefore, needs to be cleaned?

MR. PRENDIVILLE: We're making decisions on your average exposure on your property, not just on your fence line.

MR. VanderVEEN: By your own statement 100 says that's imminent threat --

MR. PRENDIVILLE: On an exposure --

MR. VanderVEEN: -- needs to be cleaned.

MR. PRENDIVILLE: Exposure area, not just the specific site. We're taking five things, mixing them together. There might be a high spot there, a high spot there. But on average it's below the cleanup standard.

MR. VanderVEEN: You're not going to accept measurements done by an independent firm?

MR. PRENDIVILLE: No. We have to have a specific quality assurance plan and approved work plans.

MR. VanderVEEN: And I can't pay you to have it re-sampled?

MR. PRENDIVILLE: No. We wouldn't ask a resident to pay us to sample. We're not planning it. We have no plans to re-sample. I think we're confident in the results we have. There's always some slight variability in the samples. But I think you have to -- we have to live with what we have.

MR. PAULSON: The gentleman had a question.

UNIDENTIFIED SPEAKER: More of a comment. I also have a situation where I saw wide disparities in the sampling in my neighborhood, from over 100 to less than 20. And as you said, could be that what explains it best is pesticide or herbicide use,

because people have have their yard and they would have stopped right at the border, more or less. And to me that seems the most logical. I mean, obviously this wasn't airborne contribution from three-quarters of a mile away to provide these kind of disparities. There has to be something more localized.

MR. PRENDIVILLE: We want to make clear, we believe there's some low level contribution. But the majority is from some other source.

Another thing to point out about Superfund, there is an exclusion that says Superfund cannot clean up from pesticides or fertilizers. So if that is the case, we wouldn't be able to address it. But because we can show there is something from the plant site, we can take an action on this site.

MR. PRIME: Tom Prime. Tim, could you describe again, in a little more detail, how you sampled the front yards and backyards, so that people understand that it's not just one point in the yard that was sampled.

MR. PRENDIVILLE: It's actually five locations. I'll draw it. Say you have a -- your lot is like this and you have a house in the middle. We would go out and take a soil sample from the five

corners and the middle and then do the same thing in the backyard. What we would do is try to stay away from like decks or other things because treated lumber has been known to have arsenic in it.

So we try to stay away from that thing or any other thing we might suspect of causing high levels of arsinic in the yard. But then we take each of those five samples and mix them up in a bag and take a piece of that and take it to the laboratory, that's how we get the average concentration across the yard. We go underneath the sod layer and take a little scoop about three inches down and mix those altogether.

MR. PAULSON: The lady and then the gentleman. Ma'am, did you have a question?

MS. GUESNARD: Mine was a comment.

MR. PAULSON: Sir.

MR. GORDON: Sam Gordon. And I'm sorry, I came late. I have a couple questions. Could you just briefly define what short-term effectiveness is? It's a little hard for me because your criteria doesn't have good definitions in these documents. Short-term effectiveness.

MR. PRENDIVILLE: It's really the short-term risks that are posed to workers or

residents in the area, if you're carrying out the remedy. Things like, you know, truck traffic, damage to properties, things like that, where you're going to create a big plume of dust when you're digging up. Which I have to say has never happened when we've done cleanups. We do sampling at the edges of the property and on the workers and the equipment when we're digging, and we've never had it hit arsenic in the dust when we've done these cleanups. We do clean work. But it does take that into consideration, that type of risk.

MR. GORDON: And who does the scoring on the criteria?

MR. PRENDIVILLE: Scores on --

MR. GORDON: Well, there's numbers on the one slide.

MR. PRENDIVILLE: Right. I tried to explain at the beginning that there's no -- we tried to use that to make it a little more clear. It's a qualitative analysis -- I mean, it's a qualitative analysis, not quantitative. But to try to make things a little more clear about how we were thinking, how things weighed against each other, we put a scoring on it.

MR. GORDON: Your team? Who's "we"?

MR. PRENDIVILLE: I'm involved, my management is involved. We had to brief our division director on these proposed plans before they came out. The state is involved in the evaluation.

MR. GORDON: How much do you give to the top score? I mean, you picked the top score then, the way they're written here?

MR. PRENDIVILLE: Right.

MR. GORDON: Is that what your intention is to do at the end of this?

MR. PRENDIVILLE: We are proposing that, we are trying to get public comments on that. And things could be changed based on public comments. They have changed remedies. There could be other comments that argue against doing anything and we have to take those into consideration, too, when we're evaluating this. Not everyone wants a cleanup on their property, and they have the same weight of voice as everyone who wants a cleanup on their property, a lower level.

Everyone's comments count. Eventually it's EPA that makes a decision. It's not up for vote. We have to weigh your comments against all the other eight criteria to come up with a final

plan.

MR. GORDON: Sure. I notice on the chart, too, there's a blank where it says state acceptance. So there's going to be up to four points for that across the board? I think you'll try to plug that in. And then community acceptance, and you're going to try to plug one to four in on that, too?

MR. PRENDIVILLE: Like I said, that number scoring was just trying to make clear what we'd done to date. And I'm not going to re-issue that table with the score at this point. Like normally what we do is we say it meets the criteria, it doesn't meet the criteria, or may meet the criteria. And I think that's -- gives enough clarity to people in this proposed plan to understand where we're coming from. But generally we don't do that. Like I said, I'm not going to re-issue it.

MR. GORDON: For the community then would it be helpful for them to say option is unacceptable or acceptable and look at them in terms of each option as you present it?

MR. PRENDIVILLE: If someone is going to submit a comment to us, if you're just going to say

I don't like this one, choose the other one, that carries very little weight with us. You have to give some reason for your opinion on this. We have to have some basis, some reason to make the change, either technical or some other reason to change the plan. But it's not just the -- an opinion statement, I hate this, I like this; it doesn't carry much weight.

MR. GORDON: No, it might be a better idea to go to the criteria and explain how we think it meets criteria.

MR. PRENDIVILLE: Right.

MR. GORDON: Thank you.

MR. PAULSON: Just a minute, folks.

Do you need a break?

THE COURT REPORTER: No. Let's keep going.

MR. PAULSON: We're going to go right into comments. And if you have comments, please do it at that time. I have a number of folks that signed up, they'll go first. The only other rule we have now is about three minutes. It's a long time. It really, honestly is. At about two minutes and 45 seconds I'll raise my hand and if you would kind of wrap up at that time. If there's time at the end,

we can continue on with this, of course.

The first person who signed up is a Jullonne Glad.

MS. GLAD: That's me. I'm actually good. I'm going to let someone else take my place for a change. I know it doesn't happen, so note that down, court reporter.

MR. PAULSON: The next person is a Beth --

MS. KNOBLAUCH: Knoblauch.

MR. PAULSON: I'm sorry.

MS. KNOBLAUCH: Knoblauch. K-N-O-B-L-A-U-C-H.

MR. PAULSON: Outstanding. Please.

MS. KNOBLAUCH: I think my biggest -- the biggest comment I want to make is the time factor. And that four years is pretty upsetting to me. We moved into the house and I had a two-year-old and a six-month-old. They've never played in the yard, in their own yard. We have to keep them off -- I mean, we've chosen to keep them off of it. She's now four, and I'm thinking she'll be eight by the time -- you know, could be eight by the time this is done. So all the eating of soil is done.

I mean, those -- the -- my concern is

studies have been done in other locations in the world and in the country, and why isn't that information just used here instead of spending two years to replicate a study? And in there are some, you know, some changes due to environment. That why aren't those just added into those other studies?

So the time factor here is really frustrating for me, is that I don't think it's been done efficiently. That's my comment.

MR. PAULSON: Thank you very much, Miss.

Miss Cassandra -- is it Bowman?

MS. BOWMAN: It's Cassola Bowman.

MR. PAULSON: Please forgive me. Could you spell that one for me, please?

MS. BOWMAN: It's spelled C-A-S-S-O-L-A. And my last name is Bowman, B-O-W-M-A-N. And my question was my property is fairly new, like 11 years old, and to my knowledge, we are the first -- that house is the first house on that property. And I was just wondering, are you going to test our property also? That's what I was wondering. I don't know.

MR. PAULSON: Are you in the sample area, ma'am?

MS. BOWMAN: I'm on 26th and 34th Avenue

and we have a lot of new houses in that area.

MR. PAULSON: No, it doesn't appear to be.

MR. PRENDIVILLE: I would have to look at the map.

MR. PAULSON: After the meeting perhaps if you could get with us, we'll look on the map. All right?

MS. BOWMAN: Yes.

MR. PAULSON: All right. Thank you. Mr. Schiff.

MR. SCHIFF: Gary Schiff. I just reiterate my question from earlier as a statement, that cleaning to background and doing a more thorough job makes the most sense to mitigate against cumulative health effects that are known in the neighborhood from other environmental impacts. And the length of time should be shortened by adding more crews to the work area.

MR. PAULSON: Thank you, sir.

Martha Reis. Reis.

MS. REIS: Reis.

MR. PAULSON: Please.

MS. REIS: It's R-E-I-S. I would just add, you know, speak to what Gary just said about

cleaning to background. I would be curious to know, I don't think we've discussed tonight how other communities establish what is the level of -- you know what's the acceptable level of contaminant to leave in the soil. And just from my cursory look at specific localities around the nation, I saw communities that -- where there was public outcry when they established that there was a level of 25 parts per million.

So it seems odd to me here that that's considered the cleanup norm. So I just wonder, you know, how you derive, you know -- how you come at this number and how it compares to other numbers nationally? Is there a national number? If not, who looks at these things? You know, seems like there's a lot of unanswered questions, which I don't expect you to have the answers for, but I think they're legitimate questions for people to raise.

MR. PAULSON: Thank you. Thank you very much.

Is it Emily Sidorfsky? Probably butchered that one. I'm sorry. Yeah, Sidorfsky. Any Emilys in here?

I was looking forward to that name.

Doug VanderVeen.

MR. VanderVEEN: I'm all set.

MR. PAULSON: Thank you, sir. We have a little bit of time left before they throw us out.

Yes, ma'am.

MS. PASS: I am just wondering --

MR. PAULSON: May I have your name, please?

MS. PASS: Oh, sorry. My name is Carol Pass P-A-S-S. Is that all you need?

MR. PAULSON: Thank you.

MS. PASS: Okay. I would like it very much if the landlords that are in this area and have been tested and their property is -- is within the range of testing or even close, that I could see where a landlord would not want to do this because it would disrupt his business. And I think it's appropriate for future tenants to know that he has not -- he or she has not had their property remediated when it should be.

I think this should be public knowledge. It's public knowledge with regard to lead. We are required to say, if we're a landlord, that we -- that our building was a pre-1978, all of this. I'm sure most of you know this. So any landlord has to tell people this. But if a landlord has, you

know --

MS. GLAD: Carol, it does. It does. It does. There's a --

MS. PASS: So they have to -- it's public knowledge? We have to inform tenants, if we're landlords, if we do not remediate our property?

MR. PAULSON: Let me ask that question of one of our representatives.

MS. PASS: Let me say one last thing. The lady's property over there is two blocks outside of the circle.

MS. BOWMAN: I wasn't sure. Thank you.

MR. PAULSON: Thank you for passing that along.

Questions? Comments? Last chance.

I want to thank you for -- Oh, I'm sorry. May I have your name, sir?

MR. GOSIEWSKI: My name is Sean Gosiewski, it's G-O-S-I-E-W-S-K-I. And just -- can we -- can we like talk about air for a minute? Because, I mean, the EPA is changing some of its rules now about air pollution, to have lower limits of tolerance. And I just was wondering if -- right now the Twin Cities is still in compliance with the Clean Air Act in general, but right around here it's

quite bad. And I was just wondering if the EPA might want to give any more assistance to cities like Minneapolis to deal with areas that have a lot of especially mobile storage, air pollution, which is probably a much higher health risk for everybody in this room than the soil contamination. I just -- do you guys have any knowledge about what the EPA is doing around air issues in helping in areas like this?

MR. PAULSON: I'm afraid we pretty much have to stay on this topic here, sir, for this. But I don't know.

MR. PRENDIVILLE: No one in this room has the air expertise to answer your question. You're better off contacting our air division. I don't have a name to give you but --

MR. PAULSON: I'll tell you what, sir, I'll come over later on, I'll get your address and get in touch with the air people next week and then I'll give them -- well, I'll give you their name.

MR. GOSIEWSKI: Okay.

MR. PAULSON: All right? That way we'll make sure there gets contact. All right, sir.

Anyone else?

I want to thank you for coming. Thank

you very much. You're a very important part of this and all these comments will indeed be read.

Please remember, you can send it to us, either fax or e-mail or letters. Thank you.

(Adjourned at 8:25 p.m.)

STATE OF MINNESOTA)
) ss.
COUNTY OF DAKOTA)

REPORTER'S CERTIFICATE

I, Janice E. Dickman, do hereby certify that the above and foregoing transcript, consisting of the preceding 97 pages, is a correct transcript of my stenographic notes, and is a full, true and complete transcript of the proceedings to the best of my ability.

Dated: June 19, 2008.

Janice E. Dickman
Registered Professional Reporter