U. S. ENVIRONMENTAL PROTECTION AGENCY

PUBLIC MEETING

CHEMPLEX FACILITY
Clinton, Iowa

held

February 2, 1993
Clinton Community College
Clinton, Iowa

Appearing on Behalf of:

U.S. Environmental Protection Agency
Region VII
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Kansas City, Kansas 66101

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PROCEEDINGS

MR. SMITH: Good evening. And thank you all for coming out tonight. I am pleased to see a good turnout here at this meeting.

My name is Craig Smith. And I work for the United States Environmental Protection Agency. My degree is in Chemical Engineering. I am a professional engineer. And I am in charge of the portion of what we call the Superfund Program at EPA, where we're responsible for a number of portions of the hazardous waste treatment and disposal program in which we identify old, and sometimes currently active, hazardous waste sites that need clean-up, some form of remedial action.

We are responsible for a four State area: Iowa, Kansas, Nebraska and Missouri. Our offices are in Kansas City, Kansas.

And, in addition to hazardous waste, many of you are probably aware that EPA has also has responsibilities in the areas of water pollution, air pollution, other hazardous waste disposal practices, drinking water.

Superfund is a program that came into existence through legislation that was initially enacted in 1980. It was re-authorized in 1986 and provides for an $8.5 billion dollar fund of money to investigate and clean up hazard waste sites.

Our responsibility in that is to identify the sites and to conduct the studies to try and determine what the problems are at the site and what appropriate clean-up measures there may be for the sites, and then to see that those clean-ups get carried out, either through the use of that Fund money that I referred to or by having companies that created the sites in the first place come back in and do the studies and the clean-up actions.

If, for some reason, we're not able to get companies who are responsible for sites to do clean-up actions, we will go ahead and use the Superfund monies that I referred to, the $8.5 million dollar fund, to do the clean-up action and then do cost recovery actions later against those companies.

So that's how the program basically works.

Can everyone hear me okay? Good. Not really, did someone say? I'll speak louder.

Tonight, we're here to talk about a site called Chemplex, which I imagine many of you are already familiar with. It's -- that's the former name of a chemical manufacturing operation that operated at the facility that's now called Quantum.

The waste from the chemical manufacturing process while it was operated as a Chemplex facility were

disposed of on-site. And many of them remain there and some ground water contamination at that site has occurred.

Tonight, we want to explain the remedy for the disposal areas and get your comments on those remedies that have been developed.

Ground water had been addressed in an earlier meeting that occurred in August of 1989. I was not present at that meeting, but some of the same people that are here tonight for EPA and other representatives were at that meeting.

And I am at least somewhat familiar with what transpired at that meeting because I have reviewed the transcript.

Bob Morby was here in my place at that meeting, but he was unable to attend with us tonight.

I refer to the two portions of the site differently. What we are addressing tonight is primarily the concerns that we have about wastes that were disposed of on-site in the landfill and in some other areas on the site property.

What we had addressed earlier, as I just said, was the ground water contamination that has occurred at that site. A remedy has been chosen for the ground water. That involves what we call a pump and treat

system where contaminated ground water will be extracted and treated.

Tonight, we're here to talk about the remedy for the landfill and some of the other waste residues that are left behind on the site itself that are sources of contamination to the ground water.

And so the purpose of this meeting tonight is for us to present information to you about those -- this remedy and to answer your questions about that and then to get your comments and input from you about that remedy.

After tonight's meeting, we will consider your comments and respond to them in writing and make that available to you. And, as necessary, we will revise the clean-up plan and sign what's called a Record of Decision.

That will be the decision document that will guide us in what we ultimately do at the site.

This is a site at which we have had cooperation so far and expect cooperation in the future from the parties that are responsible for the contamination, the previous owner/operators of the facility, namely, ACC and Texaco Getty.

We intend to -- once a decision is made about what to do at the site -- to enter into negotiations with

them in hopes that they will conduct the clean-up work that we're discussing here at the site tonight.

So the agenda for tonight's meeting will be that I will introduce who the speakers will be. There will be three primary speakers, two in addition to myself.

Then I will introduce some other people that are here with my agency and the State agencies and some other interested parties. Then I will ask that you listen to their presentations.

Then I would like to introduce the community leaders that may be here and have them introduce themselves, if I overlook any of them.

And then I will open it up for questions and comments from the audience. And we will try to respond to as many of your questions and comments as we can tonight.

However, it's been my experience that we can't always answer and respond adequately to all the questions that come up. If there are questions that come up that we can't fully address, we will take those with us and respond to you individually, and, as I said, in writing, to all of the comments later.

So some of the people that will be speaking tonight -- one of them will be Nancy Johnson. She's to my right, your left. She's an Environmental Engineer on

my staff and is well experienced and has been working on this site a number of times. For those of you who were here at the August '89 meeting, she'll be familiar to you.

Seated to her right, with the State of Iowa Department of Natural Resources, is Dr. Cal Lundberg.

And to his right is Lavoy Haage. Both of them are with the Waste Program in the State Department of Natural Resources.

Some other folks that are here with us tonight who, again, may be able to respond to questions, are Jake Joyce. He is with an agency called ATSDR. To make a long story short, he is a health official who works with us and gives us health consultations about potential health problems.

His agency is a subdivision of something you may have heard of called the Centers for Disease Control, which is part of the Public Health Service, headquartered in Atlanta.

Dave Cozad is here. He's with our Office of Regional Counsel, which means he's an attorney for EPA.

And there is also a person here with EPA, Ken Herstowski. He works in our RCRA program, which is another part of the agency's hazardous waste program.

He has done a lot of work with Quantum on their

existing facilities and compliance with existing hazardous waste regulations.

From the EPA Office of Congressional Affairs, Jan Lambert is here.

From the EPA Office of Public Affairs, Dale Armstrong is here.

And I did not have a chance to meet everyone before the meeting. Is there anyone here from the Iowa Division of Health? We were not sure whether there would be an attendee or not.

I don't recognize anyone from there.

From the Clinton County Health Department -- is Mr. Todd Vetter here? I haven't had the pleasure. Or anyone from the Clinton County Health Department? Okay.

University Hygienics Lab? Are you Rick Kelley?

MR. KELLEY: I am Rick Kelley.

MR. SMITH: Pleased to meet you. And then from ACC/GCC, Getty Texaco, is Steve Coladonato and Kevin McAnaney.

And with Quantum Chemical Company, Bob Schuler.

Okay. With that, I will turn it over to you, Nancy, for your remarks.

MS. JOHNSON: Hello. My name is Nancy Johnson. And I work for Craig Smith. I am in the Superfund Program. I have worked in the Superfund Program for

approximately seven years.

I have been involved with this site for a number of years and I have had the opportunity to meet with several of you personally.

I am pleased to be here tonight to share the most recent information we have gained from this site and to get your input.

The main purpose in my presentation tonight is to discuss with you the preferred remedy for the soils and waste of the Chemplex site. However, in the context of doing this, I am going to be discussing some of the characterization that's been done, some of the site history and background and some information on EPA's decision making process to hopefully give you an idea of why we selected a particular remedy as EPA's preferred remedy.

This is a map showing the Chemplex facility.

AUDIENCE: Nancy, talk louder. We can't hear you.

MS. JOHNSON: Talk a little louder? Okay. Sorry about that.

In the corner up here is a polyethylene plant. This is where polyethylene, high density and low density beads are produced. These beads are used to make a variety of plastic products.

Over here is an area called the landfill area. And this area has been in operation from about -- it was in operation from 1967 to about 1978. The plant, by the way, has been in operation since 1967. It was operated by ACC Getty Chemical Companies until approximately 1984, and is now operated by Quantum Chemical Company.

This area here is called the DAC storage and loading area. DAC, D-A-C, stands for Debutanized Aromatic Concentrate. And this is a product that is produced as part of the ethylene cracking process.

In this area here, this product is stored and then it is loaded onto trucks and transported to other facilities.

This is EPA's remedy, or clean-up selection process. This is a phase that EPA typically goes through to come up with a final remedy and a Record of Decision document.

The first phase of this process is called the Remedial Investigation / Feasibility Study process. As Craig alluded to earlier, this phase of the study can be done either by spending EPA Superfund monies or by responsible parties.

In this case, the past operators, ACC and Getty Chemical Companies, conducted this phase of the project. However, EPA did have some control over this by observing

the soil sampling that was done, by analyzing in duplicate some of the soil samples at a laboratory and also by reviewing all the reports generated during this phase of the project.

EPA then takes this information and -- the Feasibility Study, by the way, is a process where different clean-up alternatives are identified and evaluated. And EPA summarizes this information and selects what is called a preferred alternative.

And this information is contained in what's called a proposed plan. We have written a proposed plan dated January 21st. There are extra copies of this plan available if you would like to take a look at it tonight.

We are now in the public comment period. This started January 23rd and it is through February 21st. We have what's called an Administrative Record file that includes the Remedial Investigation / Feasibility Study reports, includes the proposed plan and includes any other documents that are relevant in selecting the preferred remedy.

And this is available in the Clinton and Camanche Public Libraries as well as the EPA Region 7 library.

And we encourage you to take a look at this Administrative Record file if you can. And we appreciate

your input on the site. And, again, you are welcome to either give us questions and comments tonight or to submit comments in writing by February 21st.

We then take this information and we prepare what's called a Responsiveness Summary, which includes all the significant comments and our response to those comments.

This is then part of the record. And we take this to develop our final remedy in the Record of Decision document.

As Craig pointed out, we were here in the summer of '89 and went through this same process. We had a meeting here in the summer. We got a lot of good public comments and we did come up with a final decision for the ground water, which includes ground water pump and treatment processes, as Craig explained.

If any of you have been to the libraries and you have taken a look at any of the documents, the remedial investigation study report is a pretty thick document. It's three volumes big and each of those volumes is about six inches.

I don't have time -- we all don't have time for me to go through all of that information tonight.

But I do have a couple of slides that has what we feel is the most significant information and

information that we thought was important in developing the selected remedy.

EPA typically looks at soil concentrations on the surface. In this case, these are the maximum concentrations of soil in the surface that's in the top foot. And this is in parts per million.

The reason that we look at that is that there's a potential, if there are contaminants on the surface, that those contaminants could be wind blown and there could be people who might have exposure to those chemicals.

In this case, these are the study areas, the landfill area, the DAC area and other areas that refers to all of these areas here.

Benzene -- this is PCE, otherwise known as tetrachloroethylene, and PAH's are polynuclear aromatic hydrocarbons. Again, this is not all the chemicals that were found, but these were the main chemicals that were found in these areas.

And these were from the highest concentrations to the non-detected. And these were the maximum concentrations found of each of these compounds in these areas.

Again, this is not the concentration that's throughout this area. This is just the highest hit on

the surface.

EPA did an evaluation of these contaminants up to this maximum level. And the results of that is that these compounds that these concentrations do not cause adverse health effects to the people who would be the most likely exposed to these.

Another thing EPA looks at is the concentrations of compounds in the sub-surface because these compounds, while people would not be exposed to dust generated from these because they are deep in the ground, there could be potential to contaminate ground water.

Again, these are the same compounds, the same areas. These are the maximum concentrations found anywhere in any of these areas.

As you can see, there is pretty heavy contamination in the landfill area. It's orders of magnitude above these other areas.

And even though there will be a ground water pump and treat system put in place next year to extract contamination in the ground water, we still feel like it's important to try to address this contamination before it gets to the ground water.

This is the criteria that EPA uses to make a remedy selection or clean-up selection. Of the most importance is protectiveness. This is protectiveness of

human health and the environment.

The next criteria is implementability. This is important because whatever clean-up action is selected, it has to be able to address the compounds of concern. There has to be equipment that's readily available to implement the clean-up action.

And, in this case, another concern we have is that we do have an operating plant. And we don't want to disrupt their actions anymore than possible.

Cost effectiveness is another criteria. Federal and State requirements, it's important that whatever clean-up action is chosen meets federal and State requirements. And -- you know, for example, the Clean Water Clean Air Act and any other federal and State requirements that are applicable.

Effectiveness, what this means is that it's important that whatever clean-up action is chosen is effective in maintaining protection of human health and the environment.

Community acceptance, that's why we're here tonight to present to our preferred remedy and the information this is based on. And we encourage your input and your comments.

There are a total of eight alternatives that we evaluated. I am going to be going through the list of

alternatives. And in this discussion, I am going to try to give you a feel for why we feel that some of these alternatives met our evaluation criteria better than some of the other alternatives.

The first alternative is the no action alternative. We do not feel that that's an appropriate action for this site. However, we are required by law to evaluate this as an alternative. And it does provide a base line for comparison for all the other alternatives.

The next alternative, cap in the landfill area and in the DAC and Polishing Basin areas. And for the other areas, this means a soil and grass cover. And these other areas would be fenced, thereby ensuring that there would not be anymore exposure to these areas.

The problem we have with this alternative is that this does not address the decontamination in the landfill that can migrate into ground water.

The next alternative is soil, SVE, a soil vapor extraction, followed by a cap in the landfill area.

Soil vapor extraction is a treatment technology. And it's been used successfully on a vast number of Superfund sites in the nation.

The way soil vapor extraction works, it's by installation of extraction wells installed vertically in the soils. And these are installed above the water

table.

And this works by applying a vacuum to all of these wells and extracting contaminants through the air spaces in the soil. And after these contaminants are extracted, they are then treated.

And we did try this out in the landfill area during the Remedial Investigation phase and it did work very well. And we think that this would be a good thing to do in the landfill.

The cost of this alternative is about five and a half million dollars. The cost of this alternative is about eleven and a half million dollars.

The next alternative is similar to the last alternative, except it would not incorporate a cap in the polishing basin area. You know, we have taken a look at both alternatives.

Essentially, the surface contamination in the polishing basin area is not that great. And we think this alternative would provide about the same amount of protectiveness as the previous one.

And this alterative costs about eleven million dollars.

The difference between this alternative and the previous alternatives, this alternative calls for SVE, followed by a cap in the landfill, DAC area and polishing

basin area. So this would incorporate SVE and the DAC and polishing basin areas in addition to the landfill.

SVE was tested in the DAC and the polishing basin areas, as well as the landfill area. It did not work near as well in these two areas as it did in the landfill. Therefore, we don't feel like this alternative incorporates anymore protectiveness than the previous two.

And this alternative would cost about fourteen million dollars.

The next alternative, SVE cap in the landfill, polishing basin areas, again, like I said earlier, the SVE did not work very well in the polishing basin area.

As far as the DAC area, what this would mean would be excavate certain portions of the DAC area and incorporate SVE in some of the other areas of the DAC area.

Again, we don't think this provides anymore effectiveness. It also would be difficult to incorporate SVE in the polishing basis and DAC areas because they are operated facilities.

By the way, this is the polishing basin here.

The next alternative is SVE and then excavation and bio-remediation of the landfill soils and cap the previous basin area. That is that area here.

Otherwise, it's similar to the last alternative.

We have some concerns about excavating the landfill. You know, with SVE, you don't need to dig anything up. But bio-remediation -- when you excavate, the landfill could cause release of contaminates. And we really don't think we would get anymore protectiveness out of this alternative.

The cost of this alternative is about ninety five million dollars.

The last alternative, SVE, excavate, and this is incineration of the landfill contaminants and this would also call for excavation and bio-remediation of all other areas.

With incineration, it would be effective for the contaminants of concern. However, there would be a lot of administrative requirements, including permits that would have to be obtained to incorporate this. And, again, excavation could cause the release of contaminants.

And as far as this part of the alternative is concerned, excavation and bio-remediation of all other areas, keep in mind that the polishing basin area and the DAC area are operational areas.

So what this would do would basically mean shutting down those two areas and relocating them. We

just don't feel like you would accomplish anymore protectiveness by doing this and have the implementation problems.

So we do not think, this would be a good alternative.

And the cost of doing this would be about two hundred and seventy million dollars.

As a result of that evaluation, this is what we have come up with a preferred alternative, SVE in a cap in the landfill area. There is a portion of the DAC area that we feel like should be capped.

And we feel like the cover and this fence and the other areas would be adequately protective of human health and the environment.

This is an estimate of the cost for performing the preferred alternative.

The capital cost would be approximately eleven million dollars.

There would also be annual operation and maintenance costs. This would be in operating the soil vapor extraction system and in maintaining the various caps, covers and fence for other areas, a cost of almost thirty-three thousand dollars.

And, again, the actual costs will be developed during the design phase.

These are the future activities for the site. Public comment through February 21st, and, again, we encourage your input and your questions and comments. And, like I said earlier, we will develop a responsiveness summary of all the significant comments and our responses to that.

And with that information, we will incorporate a final remedy into the Record of Decision document.

After that, we will move into the implementation stage for whatever the final decision is. And for the soils and waste, that's the phase of the project we're dealing with now.

As we have said earlier, the ground water is already in the implementation stage. We are in the design phase of that right now and expect that to be the -- the ground water system to be built and in operation next year.

This is the location of the Administrative Record file, Clinton and Camanche Public Libraries. And also the EPA Region 7 Library in Kansas City, Kansas has copy of the Administrative Record file for your review.

You can send your comments in writing to Hattie Thomas. This is her address and our toll free phone number, if you have any questions or comments you want to submit.

There are also fact sheets available that contain this same information.

Thank you very much.

MR. SMITH: Thank you, Nancy. With that, I will ask Cal Lundberg to come up, please.

MR. LUNDBERG: I really don't have anything of a technical nature to add to what you have heard to this point.

But I will tell you in a thumb nail sketch what the State's role has been in this process.

In an investigation and ensuing actions like this, there is an awful lot of documentation that is generated. Nancy has indicated where you can read just a fraction of this stuff.

The state has made an attempt and as far as possible with less than one person to do this to stay on top of this. As a result, our role is not primarily that of a technical nature, though we do some technical types of review.

We really have fulfilled two other functions more than that. One of these is to identify to the EPA and to the other parties involved what the State's concerns are with regard to applicable regulations that the State may have that will be impacted in the process of the clean-up or things which we feel need to be taken

into consideration in addressing a situation such as that at Chemplex.

The other activity that we're involved in, which is our most important one, is seeing that the State agrees with the overall direction that the investigation takes and that the remediation which is planned for a site such as this fulfills what the State expects in a situation like this.

And I would like to say at this point that the State is in agreement with EPA on the proposed plan for addressing the Chemplex site. So if you have any questions of me, we can address those later in the discussion tonight.

MR. SMITH: Thank you, Cal. Before I forget, I would like to invite everyone to please fill out one of the yellow cards that are available at the table over there. There were a number of people coming in at the same time at one point. And I'm not sure everyone had opportunity to fill that out.

What that will enable us to do is to get back to you with a mailing so that we can respond to your requests in writing and so you can get future notices on these meetings.

With that, I would like to introduce community officials and community leaders who might be here with us

tonight.

Two that have come to my attention are Mr. Charles Goddard, who is with the Clinton County Area Solid Waste Management Agency. Mr. Goddard. Thank you.

And Mr. Robert Tonn -- I hope I pronounced that correct -- with the Clinton Water Pollution Control Board. Thank you.

And are there any elected State or other municipal representatives here tonight? I would certainly like to have you be introduced and make a statement if you are here.

MS. LE DOUX: Mike Hardesty wanted to be here. He had a letter with him. Bill Bradley, the mayor of Camanche was to be here, but I don't see him.

MR. SMITH: Okay. I may have that letter and I am going to get to that in just a minute.

The next thing I guess I would like to mention is that we're about to open it up for the comment period. We have a court reporter here with us tonight who is making a record of the meeting so that that can be part of the public record and we can make sure we get all of your comments down completely so that we don't have to take as complete notes as we would otherwise.

And for our benefit and for her benefit and for the benefit of the other people that are here, I would

ask that you please identify yourselves prior to making your statement so that we will know who you area.

We have had two people so far indicate an interest in making a comment or making a statement. I think that would be probably a good place to start with the comments, if these people are prepared with their comments or their statements at this point in time.

If you are not and would rather wait until later, that's fine, too. I don't want to put you on the spot, but I just want to recognize your interest.

Lynn and Joy Payne indicated a desire to make a statement or make a comment. So if that's a good place to start.

MR. PAYNE: Should I come up to the mic?

MR. SMITH: Please. Thank you.

MR. PAYNE: As you stated, our name is Lynn and Joy Payne and we live in the area.

And our biggest concern and wanting to know what is going to happen is with our ground water. We are all on wells and we want to know what the clean-up action is going to be. And a year is quite a ways down the road whenever you're living in it.

MR. SMITH: Okay.

MR. PAYNE: Thank you.

MR. SMITH: We will try to address that.

I will address it in part and I will hope that some of the other people that may have more specific information will be able to help me.

We, in the course of studying the ground water at the site, have determined that there is indeed contamination of ground water beneath the site itself, beneath the Chemplex site, and that some migration of that contaminated ground water has occurred for a short distance off the site.

The remedy that was selected and is in the design phase right now will involve a -- what we call a pump and treat system. It's basically a large withdrawal well system on the plant property that will extract contaminated ground water.

And what we call the zone of influence of that pumping well will reach out to capture the contamination that has been released and is in the process of migrating off the plant site. Return that contamination to those wells.

It will be pulled out in those wells. That water will go through a treatment system in which the contaminants will be removed. And that water will ultimately be discharged through -- we're not sure exactly where it'll be discharged. It'll be discharged to the river either through the existing treatment plant

on the site or through a separate outfall.

So that deals with ground water contamination on site or at the plant site.

Does that address your question and your concern?

I think we can hear you if you would just like to stay there.

MR. PAYNE: Well, partially. In your process of pumping this, what's going to happen to the shallow wells in the area if you bother the water table?

MR. SMITH: Okay. We're in the design phase right now, which means that we will have more specific information to answer your question fairly soon.

Yes.

AUDIENCE: Excuse me, what was the question? I couldn't hear.

MR. SMITH: The question was how will the pump and treat system on the plant site effect the other wells in the area that people are using for water supply wells?

AUDIENCE: Thank you.

MR. SMITH: Will it lower them, will it dry them out, is what you are getting at ultimately.

It's -- what we -- the design would be set up in such a way that it would have a zone of influence, so to speak, that would be on the plant property to capture the

contamination on the plant property and extend to an area off the plant property. But only a short distance, only far enough to capture contamination that's already been released from the site.

To the best of my knowledge, there are not any private wells that would be effected by this pumping system. But that's where I would like to make sure that other people who have more information about this can tell me I'm correct.

Is that what --

MS. JOHNSON: You're concern is that with this pumping, they might dry up your well. It would not do that. The influence would be close to the plant area. It would not cause the water table in your area to go --

MR. PAYNE: Well, we've had problems before. When DuPont put in their large well they lowered the water table in our area. Now, that's considerably farther distance to come as the crow flies than what Chemplex or Quantum is now.

MS. JOHNSON: Well, there would be not one well. There would be several wells located around it. But they would not have as high a pumping capacity.

MR. SMITH: And you know, we have not done a study. I presume when you refer to the DuPont Plant, you are referring to the DuPont plant in Clinton and their

production wells?

We haven't done a study of what those production wells would have had on your area. And I'm a chemical engineer. I'm not a hydrogeologist.

But I would doubt that those pumping wells would have an effect on the wells in your area directly. An effect that may have occurred, but, again, I don't have the data to be able to address it one way or the other, is that the regional water table could be depressed because of use.

Again, in this area, the alluvial aquifer of the river is considered a real high yield aquifer. And I would be surprised if that effect actually occurred.

However, as I say, we have not done a study of it. I did not know whether Dupont has done a study of it or if there is anyone else here who has information about that.

But the plan for the Chemplex clean-up on pumping the ground water would not effect that.

MS. JOHNSON: Well, there would be a number of wells, but they would be pumping at a much lower rate, I am sure, than what that Dupont well was pumping at. So it would not lower the ground water table out in your area.

MR. SMITH: I have another person who indicated

a desire to make a statement. Mr. Dale Dithmart.

MR. DITHMART: I pass on this one until later.

MR. SMITH: Okay. That's perfectly all right. And then another person who may not be inclined at this point, but thought they might want to make a statement, was a Mr. William Hintz, is that correct?

MR. HINTZ: Yes. I would like to talk all night, because this is such a sore subject.

MR. SMITH: Okay.

MR. HINTZ: I am Bill Hintz. I live in the swamp down there.

On the map up there, you had three chemicals you tested for.

MS. JOHNSON: Yes.

MR. HINTZ: How about arsenic?

MS. JOHNSON: Arsenic is --

MR. HINTZ: That is a very deadly chemical. And once it gets in your system, it stays there and just keeps building and building until you get enough to knock you out dead. I don't see anything about arsenic testing.

There is 500 and some chemicals known in that area. All you talk about is three. Why?

MR. HINTZ: You can answer later on.

MS. JOHNSON: Okay.

MR. HINTZ: Now, you talked about how you're going to fix the dump sites. What are you going to do, throw in a couple buckets of mud and throw some grass on it like you did the other about eight years ago, six years ago?

And then you talk about fourteen million it's going to cost. You've got $270 million dollars down here. And then I see another one costs about $11 millon dollars.

What figure, million dollars worth could I put on my wife that died from three different kinds of cancer that caused from any one of the chemicals in there? What's she worth? $100? It cost me more than that to bury her.

You talk about $270 million dollars. That's a drop in the bucket. She's worth more than that to me. You didn't lose anybody. You live a couple hundred miles away from here. You don't have anything on there.

And you talk about soil removing. If it gets bad enough, are you going to dig the dump out and haul the dirt out?

AUDIENCE: No, just dump it in Hazel Lake.

MR. HINTZ: What are you going to do with all the water and chemicals that's from the dump site already moving downstream? I call downstream downhill.

And then you say "we don't think", "I don't think". I think with your education and as my tax money pays your salary, you should be able to say, "I believe" instead of "I don't think."

We don't pay you for don't thinking. We want some true answers. You gave me the same run around about eight years ago when we was at the Camanche meeting down there.

And then -- what's your name, sir?

MR. SMITH: Craig Smith.

MR. HINTZ: Okay. You said you was going to put some wells around the dump, what we're talking about tonight. They're good for a short distance of pumping the water up and out of there.

Sure, you're going to clean up the water right around there. What you going to do with the water what's already slowly moving towards our wells? You don't think about that. I don't think about it. I know it's coming down there.

And we have a very dear friend of mine, Hazel Foley --

AUDIENCE: She is my mother.

MR. HINTZ: She is right now -- she's in Iowa City hospital very sick. She has cancer. We don't think, we know she has it. Now, why don't you stop

saying, "I think" and "we don't know".

And you'll come up there and you're going to pump out some water. What are you going to do with the excess water that you pump out? Are you going to pump it into my Mississippi River where I have my houseboat so you can kill the fish so I can't go fishing anymore?

AUDIENCE: No, put it in Hazel Lake.

MR. HINTZ: You know it killed all the fish in there already. I got some more notes here but I can't read them all. But it burns me up to think that you're going to clean up our water, our environment by putting a couple of loads of clay top of the dump.

Sprinkle some grass seed on it, put a fence around it say, oh, that looks pretty. We're looking at the prettiness. We don't worry about that ground water.

After we kill everybody off in that area, it'll go away.

Now, somebody is dragging their feet around here. It's been eight or ten years we've been fighting ground water. Chemplex, DuPont, dump sites, and there are dump sites that I told you about. They've never been uncovered. They've never been checked out? Why?

We pay you to do it. We give you the information and it's up to you people who get paid for it to go out and investigate it. No. If you would live

there, if your family is slowly dying off one by one, you would get off your duff and you would spend some time in there and snoop around and see what's going on.

That's enough for right now.

MR. SMITH: Thank you. There are a number of comments there. And I would like to take them in the order they were presented to try to address them as best we can.

The first one that I have down has to do with testing for arsenic in the wastes that were at this site.

And, Nancy, that's probably one that you can address as to whether there were analysis run on the wastes for arsenic at any point in time.

MS. JOHNSON: There were analysis done for arsenic and other metals at the site. Arsenic is not a contaminant of concern at Chemplex. It was not ever used in the polyethylene process.

MR. HINTZ: According to the paper the other day it was used in their process.

MS. JOHNSON: Do you happen to have that information?

MR. SMITH: If you could submit that to us, we would certainly consider that. As I understand what Nancy is saying is that we did a -- we and ACC/GCC

conducted a chemical analysis of the waste that's disposed there.

And I don't know whether arsenic was detected in that waste or not. But what I hear you saying is that it was not one of the contaminants that was there in high concentrations --

MS. JOHNSON: That's correct.

MR. SMITH: -- of concern. But we would have to review the data, which we do not have all of it here with us tonight to adequately respond to that comment.

Yes.

MR. HINTZ: You didn't read up on arsenic very well then if it's just a small amount. A small amount is enough. A minute part in water, either drinking or in taking a bath in it.

Once it gets in your system, it stays there. It never flushes out until you accumulate enough of it until where it will finally kill you.

MR. SMITH: Right.

MR. HINTZ: What's it take seven or eight years?

MR. SMITH: I'm not saying that I don't think arsenic is a toxic compound. We're aware that it's a toxic compound.

But what there has to be is some method for people to become exposed to it. If it is, and we're

going to check the data in the landfill or the ground water, in any concentrations on the plant site, the remedies that are being proposed here tonight will address that concern or address that problem.

We do not know of any current cases of anyone being exposed to unsafe level of arsenic or other compounds, now or in the past, through drinking it and other ways.

MS. LE DOUX: My ground water has TCE in it and I have lost two people that I loved. And I have had cancer. There are nine houses on that block and seven of them have had cancer.

MR. SMITH: Okay. You remind me of the letter that you referred to earlier. And I apologize for not having come back to that. I want to come back to the rest of your comments, Mr. Hintz.

But, before we left today, we did receive a letter in our offices. And I saw it for the first time on the way up here. And let me read it to you. It's from the House of Representatives, State of Iowa, Statehouse.

And it's not dated. But the second page is dated January 27th, 1993. It's signed by 24 State senators and representative, so legislators. Let me read it to you.

It's addressed to EPA, Administrator, Area 7, meaning Region 7.

"Dear Sirs, Numerous citizens from around Iowa are very concerned with the remedial action that is proposed for the Chemplex contamination site.

"Without knowing the technical aspects of this particular site, or the necessary technologies or methodologies needed to deal with the clean-up of this site, we hope that your agency will pursue this effort with diligence and effectiveness.

"As a part of the prescribed clean-up strategy, we ask that a health based study be conducted to determine if residents within close proximity to this site have been exposed to harmful pollutants and if these pollutants have had any detrimental health effects on these citizens.

"Local citizens have shown great concern over the years for contamination problems in this area. And with the information now available on the site, it seems only prudent that a health analysis be part of any remedial action plan.

"Please consider our request in formalization of your final plan and keep us informed as to the progress of your clean-up and any other information that is available that is available concerning the extent of

damage to the local citizens and the environment."

So that's the letter. To date, this is the only letter that we have received during the public comment period. But we -- and we take it seriously. We will give it serious consideration.

As I said, we just received this before I left the office, like an hour before I left the office to come down here today. We will take this back to our managers and people in authority, greater levels of authority than I, if you will, at EPA. And it will be -- it will be addressed and it will get some attention.

I can't promise you tonight that the health study that is requested here will be conducted. But we will, as I say, give it serious consideration. So I am not saying yes or no. I don't have the power to do that tonight.

I would point out to you that there has been health information gathered about this site. Some prior to the last meeting and some in the intervening period between the last meeting and now.

We were aware that there are a number of grave concerns on the part of people living in the area. In trying to respond to those concerns, the University Hygienics Lab, working with the local county health department, did a series of samples on wells, private

drinking water wells in those areas to try to determine what kinds of contaminants were found.

Since I didn't conduct the study personally, I'm not intimately familiar with all the details of that. But I am aware that there were some concentrations of trichloroethylene found in some of those wells.

None of the values that were found in those wells were above the EPA action level of concern.

AUDIENCE: How many years does that have to be though?

MR. SMITH: Well, the EPA -- the level that we're talking about of five milligrams per liter. And I will ask a health official to help respond to your question.

But the five parts per billion level of TCE is a toxicity level that's based on long-term exposure. The way the calculations are made or it's based on, I believe, a 70 year exposure to persons drinking a certain quantity of water every day during that time period.

And at that level, there could be -- the prediction is that at that level, one cancer in one million population could occur. That's my laymen's description of it.

What you all have been repeatedly reporting is the evidence of cancer rates higher than that in this

area. My point to you is that without more information, it's impossible to know what the contributing causes to those cancers were.

Based on the data that we have, we do not think that trichloroethylene contamination in the water is a significant contributing factor. We all must be aware that there are many contributing factors to cancer. There are lifestyle factors of smoking, diet, alcohol consumption. There are occupational exposures.

There are other exposure that we have to pesticides and other things that we use in the residential area. And there is not an automatic connection between those -- what we consider low level of contaminants that were found in some of your wells and those cancers.

The other point I need to make is that the technical evaluation that we have done tells us that there is no technical connection. There is no physical connection that we know of between the operations at Chemplex and those contaminants that are showing up in low levels in your wells because of what we know about the hydrogeology and the geology and the hydrology.

In other words, the water flows in the area.

So that's about the -- Jake, did I say that right? Can you add to, delete from?

MR. JOYCE: I believe that trichloroethylene or TCE was found in one individuals drinking well at a level of 1.5 parts per million.

MS. JOHNSON: It was found in Hazel Foley's well. And I think back in '89, it was found, like, at a level of three. And it's been sampled since then and it's had levels of two and levels of one recently.

AUDIENCE: But how many years does she have to drink that by the time you do anything, you know? It's probably been in the well all through this time. And by the time you sample it, how long has it been there? What -- you just found it so it just got there, or how long has it been there.

MR. SMITH: Excuse me. Could you identify yourselves and talk loud enough so that at least the reporter can hear?

AUDIENCE: I am Hazel Foley's daughter. I don't know much about chemical contamination. I am here for my mother. I can't talk about it right now. I know she had a paper about the contamination of that water.

Anyway, I just came tonight to learn more about it.

MR. SMITH: Yes, ma'am.

MS. AUSTIN: I am Jean Austin. And I have three points I would like to bring out.

All this seems to be -- these tests with the drinking water. And from my understanding, some of these chemicals are even more toxic, like if we bathe in them. They go right through your skin, the same way they go through your gastrointestinal system.

It's just as bad to bathe in them, which is a lot more water.

Also, you are doing this all one by one. Whereas, a lot of these things, the combination is -- I mean, it's not linear. It's not one, two, three, four. I mean, the sum of the parts could be vastly more toxic than you would think.

Also, as far as lifestyle is concerned, I can't imagine how the lifestyle of the people out there is that much different than anyplace else.

And then if they're not coming from Chemplex, where are they coming from?

MR. SMITH: Okay. Again, multiple good comments.

Let me go back and try to work -- before I get too far away from Mr. Hintz's comments. We addressed -- well, we don't have the data with us, so we can't fully address the arsenic question. But we will get back to you on that.

What I wanted to clarify though before we move

to something else is that we're not saying that arsenic is not toxic. We recognize that arsenic is a toxic compound.

But, to our knowledge, as I say, people are not being exposed to it based on the testing that we have done.

Throwing mud on to the dump site and planting grass on it as the remedy, what I would like to clarify here is that there are two important parts to the remedy in the landfill.

The first, and probably most important is, what's being described up here as soil vapor extraction. And that's a fancy technical term that basically says that what will happen in the landfill area is that there will be wells installed but they won't be wet wells or water wells.

They will basically be cased holes into the landfill. Fresh air will be drawn through the landfill and the waste that's there will be essentially treated in place in that a lot of these toxic compounds that have been listed up here are what we call volatile, which just means they evaporate.

If you pull fresh air through it, the compounds tend to evaporate into this fresh. The fresh air is drawn out, treated, the toxic compounds are removed

before it's discharged to the atmosphere.

If that is done over a long enough period of time, there can be a significant reduction in the concentrations of contaminants that are in the waste that's disposed of there.

This was a relatively new technology ten years ago with EPA. It has since been widely applied, has widely been demonstrated to be effective. It will not clean up contaminants to zero, but very few technologies can.

The studies that we have done out at the site and that the company has done out at the site indicate that this will be at least a very effective first step in addressing the contamination.

And we are hopeful that it will achieve significant reductions in the contaminations at the landfill. And the more so that it will reduce the loading on the ground water, in other words, that this pathway will be broken so that the ground water pump and treat system can work over a period of time because fresh contaminants won't be coming into it.

Part of the purpose of the cap over the landfill area, and that could be aptly described as mud and grass is, to protect -- to break the direct contact threat so that workers or other people in the area won't be coming

in direct contact with the contaminants that remain behind in the landfill.

So that's what the remedy consists of. I can only empathize with you over the loss of your wife. And I know that there is no way for any of us to correlate costs of these actions with that.

But I am here tonight to tell you that we are in good conscience looking at these problems as hard as we can. And while there is nothing I can say that can ease that, we take this site seriously and we are committed to investigating the problems and, to the limits of our authority and our technical ability, to make the best judgments that we can.

But all I can is I'm sorry beyond that.

Movement of the chemicals downstream, we have looked hard at the hydrogeology at the site and at the hydrology. And those are a couple of fancy words that mean that we are convinced that the ground water pump and treat system that will be constructed there will prevent contaminated ground water from moving from this site into private drinking water wells nearby.

And we have a monitoring system in place to ensure that that will take place. And if it doesn't, we will require further actions on the part of the company to make sure that it does.

Hydrology refers to rather than sub-surface water flow, surface water flow. By that, we mean water that runs off-site from the surface of the site down the stream into the pond or into the lake.

We have evaluated that. We have taken some sediment samples in that streamway. We have taken samples of the water as it runs off of the site. And, to the best of our knowledge, that is not a route of contamination off the site into that nearby lake or those surrounding properties.

Now, you may refer back to the fish kill that occurred a number of years ago. And we are aware that the State of Iowa is aware of that.

We looked at that and there are a couple of important factors that effected that, that make us think that there is not a connection between that and the present contamination that is showing up in at least one drinking water well now.

The main difference is that there are two entirely different types of compounds involved. In the fish kill, there was a compound, it was actually a combination of compounds that Nancy referred to. Another fancy name, debutanized aromatic concentrate.

What that is is a mixture of primarily four compounds: benzene, ethylbenzene, toluene and xylene.

In other words, some big words again. But they are basically a class of compounds that do not have a chlorine molecule on them.

There are another class of compounds that do have chlorine molecules on them. And that's with the trichloroethylene that you hear about. Whenever you hear "chlor" in the word, that means that there's a chlorine compound on it. The TCE, trichloroethylene is a chlorinated compound.

The fish kill was caused by DAC, debutanized aromatic concentrate. The set of compounds that are toxic enough to kill fish, but don't have that chlorine on them. Some of the things that are showing up in the wells are chlorinated compounds, compounds that have a chlorine on them.

What that tells us is that there not at least a long-term connection between that spill and what's showing up in the wells at the site.

That's an important piece of evidence to us, too.

You want true answers to our questions. And you expect us to be sure. And I think you have a right to expect that. You have a right to expect us to study this site as completely as we can and to be honest with you about what it is that we're finding at the site.

We're doing everything in our power to do that. However, there are limits to certainty, even in science, in scientific and engineering pursuits. We feel also obliged to you to tell you what the limits of our certainty are.

But I can speak for the team and for my agency in telling you that we are doing everything that we can to make an honest intellectual effort to study the problems and address them in the most rational way that we can.

Wells around the site and how the contamination is moving to her wells. Yes. What's been proposed as part of the pump and treat system is a set of small wells where, again, that zone of influence or the capture area of contamination of a well next to another well will overlap or interlock to form a sort of a barrier, if you will, to prevent contaminants from coming off the site.

That's how the system will be designed to work. And we wanted monitoring in place to ensure that it works that way. And if it doesn't work that way, we'll go back to the company and make them improve it.

And I am sorry to hear that Mrs. Foley is in the hospital in Iowa City. I have not had the pleasure of meeting her. But I sincerely was looking forward to meeting her and talking to her about some of these things

tonight.

When water is pumped out to the Mississippi River, will it kill fish there? No. What is going to be part of the design for the pump and treat system at Chemplex facility is that the contaminated ground water will be removed from the aquifer beneath the site.

What will happen to it then is it will go to a treatment facility that will be built specifically to safely remove those contaminants and see that they are disposed of properly. And clean water, within the definition of State of Iowa's discharge requirements, can then be discharged to the river.

And it would be under the terms of the existing treatment permit for the plant. And the State of Iowa is in the process right now of reviewing the NPDES permit limits for the existing plant.

And it's my impression that they're doing a good job and that those are pretty tight limits. And that they are set to protect water quality standards in the river. And the ultimate effect on fishing, the reference was to killing fish in the river, will not occur assuming that those limits are met.

And, as I said, there is a federally enforceable program to see that those limits are met.

Is that accurate, gentlemen from the State?

MR. HAAGE: Yes.

MR. SMITH: Other sites that you have told us about that we have not discovered, I have been involved with at least -- well, are you per chance referring to the -- what we have called the DuPont/Todtz site where there is a reference to a tanker having been buried at one time?

Or is there a different --

MR. HINTZ: That's one of them.

MR. SMITH: Okay. That one is one that was raised. And I don't remember what the forum was. But I do know that we, in response to that concern, did an investigation looking for that tanker. We worked with the people that we could find who had specific information about where it was buried.

We did trenching in the area to try and find it. And we did -- didn't we do magnetometer geophysical testing to try to locate it, and I think made an exhaustive search and never found it. That's not to say that there isn't something out there somewhere.

But, based on the best information and our best efforts, we were not able to find it.

If you have any specific information, anymore information, any information you don't feel like we have sufficiently pursued, I would like you, if you could, to

please put that in writing to the extent that you can give us maps or statements from yourself and other people who are familiar with it.

The best documentation that we can get, we will try and pursue it or have the company pursue it. But we need the best hard information that we can in order to be able to respond to that.

And then there were three portions of the comment that I have not responded to -- and, ma'am, I'm sorry. I don't remember your name.

MS. AUSTIN: Jean Austin.

MR. SMITH: Jean Austin. Okay. Thank you. That you had referred to. One was other ways of exposure to the compounds, for example, bathing. And that is a good point.

In the -- what we're getting to there is individual drinking water supplies where you all have seen some trichlorethylene in the wells. There are two primary routes of exposure that one is concerned about with that.

One is ingestion from drinking the water. The other would be in showering for instance, because the compounds as I said, are volatile. They can evaporate so that when showering some vapors can be generated and in and enclosed space, that could, over a long period of

time, pose a hazard.

It is my understanding and correct me if I am wrong, that in setting the MCL, that is the Maximum Contamination Levels, in setting this magic number of five that you have heard about, that there is enough buffer in there so that the route of exposure is also considered and covered. And so that's the best response I can give to that.

The sum of the parts -- what you refer to is correct and that is that if there are cases where there are multiple different types of compounds that one is exposed to, sometimes the effect of that exposure can be worse than the additive individual effect of an exposure to any one.

There is, again, a fancy name for that called synergy, synergistic effects. What our results show from the private wells that were sampled were that there was only one compound of concern detected above the detection limit, but, again, below this action level of five.

And so, as a result, those type of synergistic effects would not be seen or would not be exhibited. But that is a concern sometimes at other sites where there are multiple compounds. And it's one of the reasons why it's important that the landfill be treated, as we were discussing tonight, and that the ground water be dealt

with at the Chemplex site.

And then on the subject of lifestyle, I did not mean to imply that there was anything different about the lifestyles of the people that live in the area that we're talking about.

My point, and I think you're probably right, they're probably typical of the general population, but the only way to determine what the causes of the cancers that are occurring is it's a very difficult thing to find out. But the only way to determine that is to look at all the potential forms of exposure that any certain individual might have.

And a lot of those things relate to personal habits that are none of my or anybody else's business, but would be part of such a health study if one is to be conducted.

To repeat, the use of alcohol, the use tobacco, occupational exposures, the use of certain types of pesticides, family heredity. There are probably a dozen other factors that I haven't named that would have to be considered.

And even then, after all that data is collected and people are followed for a number of years, there is still a high degree of uncertainty about what the cause contributing factors were to the cancers or the

prevention of cancers for that matter.

Each of you read once a week in the paper about some new study in the Journal of the American Medical Association and elsewhere about new compounds that either contribute to or seem to prevent the formation of cancers. And there are different cancers, it's my understanding, among different peoples.

There are different contributing factors to different ones. And it is a frightening thing. I would not stand up here and tell you that it's not. I think it's of grave concern to all of us.

But it is -- I just need to put it in that kind of a perspective.

And, as I say, the letter requesting this type of a health study will be given consideration. I am sorry we didn't get it earlier so that we could have had a response to you tonight.

The other, while I am on the subject of health, the other couple of things I should mention, I think, are that what's called a risk assessment or endangerment assessment that focuses on health has been done for the Chemplex site.

It is part of the documents that are available in the library. It is part of the RI/FS; the Remedial Investigation and Feasibility Study. It is a thorough

exhaustive look by professionals based on the best information that's available to them and to us as to what the potential threats from the site are.

And you can read in there about the carcinogecity of different compounds. You can read in there about what some of the synergistic effects perhaps might be. And what it does is it looks at the possible routes of exposure from these areas to people and the potential risk that's posed by them.

What the study basically finds in its conclusions are that, yes, there are some toxic compounds on the site. Yes, some releases have occurred and continue to occur. But they are limited in their area.

They are limited to the inoperative and operative portions of the plant site itself, the plant grounds, and to the ground water that we have already talked about is contaminated beneath and immediately adjacent to the site.

And that there is enough threat if nothing is done, posed by those contaminants to justify spending many millions of dollars to do this clean-up. Otherwise, all this wouldn't make sense.

But what that is it's a look into the future. It's a look down the road that if nothing were done, what could possibly happen at this site? It tries to

speculate. And in that speculation, it shows that there would be a potential threat down the road if nothing were done.

Hence, there is a need to do something today. And the remedy that we're bringing to you tonight is our attempt to describe that in the most complete, but simple, terms that we can.

There has also been a two-county health study that, I think, was done either by the State Division of Health or by the cooperation of the two county health departments that did a survey and evaluation of, I think, cancers in the area.

The gist of the results of that, as I understand it, did not really shed any light unfortunately on the problems that are in this area. But that study was done and some of that information may be useful to others who attempt to do something similar to that in the future.

Is that accurate, based on what you know?

MR. JOYCE: Yes, that's accurate.

MR. SMITH: Okay. Thank you.

Were there any other comments that I missed and did not at least try to address?

MR. BARK: Yes, I have one.

MR. SMITH: Yes, sir.

MR. BARK: My name is Jim Bark. I'm a resident

out there. My concern, like Lynn's is is about that shallow water. Because at one time, they had a little lake out by us. They pumped that lake and it dried up my well. I don't know if it dried up anybody elses, but it did dry mine up.

Arsenic was found in my well and my concern here tonight is with the Chemplex monitoring.

I don't see why they couldn't put a series of wells down there right now to test the shallow water. With the State here I know they got plenty of stuff out there.

And all it takes is to go down thirty of forty feet. They could check that once every three or four days and make sure contaminants aren't moving toward other places or my place.

MR. SMITH: Okay. Thank you. Again, two parts to that. And I would like some help in addressing this one. Why don't we address the second one first. That would probably make the most sense.

Testing shallow wells at the site. There are a number of monitoring wells that are in existence at the Chemplex facility on the perimeter of the Chemplex facility.

Do I recall correctly that there are some in the process of being added or is that not correct?

MS. JOHNSON: There will be some added. Right now, there are quite a number of wells on the Chemplex facility. And we have found the edge of the contamination at the Chemplex facility.

There are actually some wells that are clean there that are being monitored.

MR. BARK: Are they south of the site, Nancy?

MS. JOHNSON: Yes. They are. They are south and east of the site.

MR. BARK: They are south of the landfill?

MS. JOHNSON: Right.

MR. BARK: Are they being monitored for chemicals?

MS. JOHNSON: Right. They are being monitored for chemicals.

MR. SMITH: And the reason they are located where they are at is that that is known to be the direction of ground water flow. So if contaminated ground water were to migrate off the site, it would go in that direction. And these wells would see it, so to speak.

MR. BARK: When, before it would migrate?

MR. SMITH: Yes.

MS. JOHNSON: We'll see it at the wells that are already there before we would see it at wells down

gradient.

The wells that I am talking about are actually closer to the Chemplex facility than the wells you're talking about. And we haven't seen contaminants migrate off the site at that point.

MR. BARK: So in other words what you are telling the audience is that contaminants are not migrating off the site.

MS. JOHNSON: Well, they have not migrated past a certain point on the facility. They have not reached any residential wells.

MR. SMITH: Shall we put the map up here? Can somebody get the map for us?

MR. BARK: Yeah, let's see the map.

MS. JOHNSON: We do have wells all around this area outside here. We actually have clean wells that are out around this area.

Your property is located --

MR. BARK: They are testing wells. Is that what you are talking about?

MS. JOHNSON: Yes. They're monitoring wells.

MR. BARK: Who is testing them?

MS. JOHNSON: They are being tested by the company and we collect split samples of those.

MR. BARK: You mean they are being tested by

Chemplex?

MS. JOHNSON: By ACC/GCC.

MR. HINTZ: And these wells are south of the creek?

MS. JOHNSON: Yes. There are wells south of the creek.

MR. SMITH: The other part of the question had to do with -- and forgive me for not introducing you earlier -- but you are Mr. James Borota, and you are a city councilman?

MR. BOROTA: No. I'm Mr. Borota.

MR. SMITH: I'm sorry. Here he is. You're Mr. Barton. No, excuse me, you are Mr. Bark. Yes, I'm sorry, Mr. Bark.

MR. BARK: Bark, that's right.

And I am a resident down there and my well was contaminated.

MR. SMITH: Well, your well was contaminated with arsenic and as part of the DuPont -- okay. Let me back up and bring the rest of the folks up to speed on this.

There is a site, as most of you probably know, near Chemplex, the former Todtz farm where DuPont operated an industrial waste landfill adjacent to the municipal landfill.

And arsenic concentrations were found in the ground water below that landfill in some significant concentrations. And your well, it is my understanding, was close enough that it was not contaminated with unsafe levels by the time it was replaced, but did have traces of arsenic in it and since has been replaced.

Is that correct?

MS. JOHNSON: That's correct. It had a concentration of 30 parts per billion and the MCL for arsenic is 50.

MR. SMITH: Again, the magic number, the action level is 50. So, there again, it's a problem that was caught in time hopefully.

And that -- so my point of pointing out that that's a different site is that they are far enough apart that there is not significant interaction, we think, between the contaminants from the two sites and the ground water.

MR. BARK: But again, you said that the shallow water beyond the landfill is being monitored.

MR. SMITH: Yeah. It is being monitored. We established that.

MS. JOHNSON: It is being monitored. There are shallow wells and deep wells.

MR. SMITH: Okay. And there was another

comment, and was it yours, that when someone pumped a pond nearby, your well went dry?

Whose comment was that? Was that yours?

MR. BARK: That was mine.

MR. SMITH: Okay. And I don't -- I'm not -- can you tell us a little bit more about that.

MR. BARK: It was the pond next to my farm. And when they were pumping out the water, my well went dry.

MS. JOHNSON: Was that Van Dixon Lake?

MR. BARK: Yeah.

MR. SMITH: Fortunately, Ms. Johnson is also the project engineer for the DuPont site. So we have a wealth of knowledge here with us tonight.

We'll make a note of that. And I haven't brushed up on all the hydrogeology in that area, but we're making a note of that. And we will respond to you about that, but I'm not sure it will be part of the Responsiveness Summary or this record. But we will respond to it.

Yes, Councilman Borota.

Could you come up to the microphone, or just speak loudly.

MR. BOROTA: I just wanted to know about something from the earlier discussion. We have shallow and deep water wells. You say you are monitoring

individual wells or stations at different levels at the site.

MR. SMITH: Well, both has happened over the last year, ten years. The monitoring wells that Nancy described earlier that are on and near the plant property that she just described are monitored, analyzed, checked --

Quarterly, is that right? Or semi-annually, quarterly?

MS. JOHNSON: Quarterly.

MR. SMITH: Then the individual wells that a number of the people have raised concerns about have been sampled on a regular basis, not by us but by the cooperation of the University Hygienics Lab and the County Health Department over the last two years.

And maybe Mr. -- I'm sorry, is it Rick Kelley?

MR. KELLEY: Yes.

MR. SMITH: Can you give us a little more specifics about that?

MR. KELLEY: Well, there aren't many specifics to give. The University Hygienics Lab is part of the University of Iowa. We share the concerns of the local residents of the potential effects of the contamination of the ground water.

Beginning in February of 1990, working with the

local county health departments, we began monitoring the wells in the immediate vicinity of the complex just to determine what sort of exposure might be seen out there and to enable us to determine whether or not there was going to be any fluctuations in that type of exposure. And if concentrations were increasing, we wanted to know that and know it early on and be able to inform those people.

So we have been monitoring on a quarterly basis each of those wells. Hopefully, my understanding is anyway, that each of you has been getting the results on a regular basis. As well as providing that information to the local county health department.

We have every intention of continuing that for the foreseeable future. We have no cutoff date. We will continue to monitor it until we're assured that, in fact, the situation is being handled satisfactorily.

MR. SMITH: Thank you. Yes, ma'am. What's your name?

MS. LE DOUX: I'm Elaine Le Doux. I have received the letter just yesterday. There is still TCE in my well, but it's suppose to be at a safe level -- whatever that's suppose to mean.

MR. SMITH: Mr. Kelley, are you familiar with the results from Ms. Elaine Le Doux's well?

MR. KELLEY: From when?

MR. SMITH: You said you received your letter yesterday?

MS. LE DOUX: Yesterday.

MR. KELLEY: As a matter of fact, I brought the last set of analysis with me. Le Doux? You do have some low concentrations of total organic and thridium (ph). Those are apparently the only two that we're picking up at this point.

MS. LE DOUX: It said something about TCE, too.

MR. KELLEY: TOC. Total organic carbons.

MR. SMITH: And that's something different from TCE. Were those analyzed for the halogenated organics? Excuse the technical jargon.

MR. KELLEY: Yes.

MR. SMITH: I'm including PCE, TCE and they didn't show up above the detection limit, is that what I'm --

MR. KELLEY: That would be correct. We did pick up, in one particular well, it picked up a number of hydrocarbons, benzene, xylene. Looking at the composition of the detects in that well, it looked like somebody spilled some gasoline. The rest were all below detection.

MR. SMITH: Okay. So no TCE, but some BTEX.

The other source of the BTEX that I referred to earlier and as he alluded to earlier can be gasoline, gasoline spills. But this analysis apparently didn't have any TCE in it this time.

MS. LE DOUX: That's not what it said on mine. It said it was a low concentration. But he mentioned it. Dr. Cherryholm (ph) mentioned it.

MR. SMITH: Dr. Cherryholm, in his letter, he mentioned it in the cover letter?

MS. LE DOUX: Yes, he did.

MR. SMITH: What I would like to do is go back and we will check -- we'll request copies of that data transmittal and that letter from University Hygienics Lab and then respond to that.

Did you bring the letter with you where we can take a look at it?

MS. LE DOUX: No, I didn't bring it with me.

MR. SMITH: We'll get a copy of it either from you or from them and respond to that in the comments for the meeting tonight.

Okay. Is there anyone else who came after the City Council meeting or otherwise that would like to be introduced or would like to make any kind of a statement while I am here?

Yes, ma'am.

MRS. PAYNE: This isn't in reference to the safety of ground water but I was just curious, was there ever any problem as far as those little beads?

Back in the seventies, when we lived out there, they used to haul all the polyethylene out to the landfill and John Doty's. And we used to have the plastic beads all over. I'm just curious about it. They would be all along the roadway and in our yard and it looked just like snow.

And the animal residue -- the wild animals left around there had these pellets in their, you know -- number two.

Was there ever any problem with that stuff, all those beads being hazardous to the residents out there?

MR. SMITH: Can you address that? That's not something I am specifically familiar with.

There also are some --

MRS. PAYNE: Well, it's closed up now.

MS. JOHNSON: The John Doty landfill?

MRS. PAYNE: Yeah, that's right. Up at the end of the street almost. There was a lot of it I was curious about it.

MR. SMITH: Let me ask the person who knows the most about it.

MS. JOHNSON: You know, as far as the

polyethylene beads themselves, we have never known of them as causing any health hazards. These wastes we're talking about are wastes that are part of the process not the product.

But we don't know that polyethylene itself as being a hazardous substance.

MR. SMITH: It's basically the same material that's -- I'm sorry.

MR. HINTZ: (inaudible)

MR. SMITH: Mr. Hintz, if you could just talk loud enough so I can hear you and so we can respond to the --

MR. HINTZ: Oh, so she says these beads are not toxic.

MS. JOHNSON: Polyethylene is not known to be a hazardous substance.

MR. HINTZ: In other words, I could scatter it around my yard, and in the sandbox and let my grand kids play in it safely, right?

MS. JOHNSON: Well, I don't know if you would want them swallowing it.

MR. HINTZ: Well, yes or no. Yes or no. Is it or isn't it?

MS. JOHNSON: Well, not from a contaminant standpoint, but I don't think you would want them

swallowing a bunch of it.

MR. HINTZ: Then it is harmful.

MS. JOHNSON: Well, I mean, just like any -- you wouldn't want your kids, grand kids swallowing any plastic beads.

MR. HINTZ: It's either harmful or it isn't. It should either be put in the dump or it shouldn't be put in the dump, which is it?

MR. SMITH: Well, what you're talking about, it's my understanding, is the -- are they high density, low density polyethylene beads?

MR. HINTZ: Well, it's been a few years ago.

MR. SMITH: It's my understand that that's a product that's one step away from being turned into a finished plastic, is that correct? In other words, it's a consumer item.

MS. JOHNSON: It's a product.

MR. SMITH: It's a product that's readily used. And now days recycled. And maybe there is someone from the company who can address this as to what they are used for and ways in which they are in common use.

Anybody have any ideas? Steve or anybody?

No comments. Okay, yes sir.

MR. BOROTA: I have one other comment from an earlier comment I heard about pumping water that is

suppose to be clean back into the river. Are they allow to pump a certain amount according to the flow of the river to make it legal?

Another company put in the gauging station to monitor the flow of the river and would dump according to the flow of the river? Is this going to be the same kind of situation to make it all legal?

MR. SMITH: I don't know about how specifically how the NPDES permit is written or will be written. Do you, Lavoy or Cal, from the State's standpoint, I know that's not your program area. But you might know.

MR. HAAGE: Yeah. I'm not familiar with how they propose to do it now. But that could be a possibility.

MR. SMITH: We're talking about, would the discharge be to the Mississippi River or would it be to the tributary?

MS. JOHNSON: It would be to the Mississippi River. And it would be either through the permanent discharge from Quantum or some other discharge that would have to go through the same process.

Through the permit, there are certain levels allowed.

MR. BOROTA: What I'm saying is that they could possibly use the river to their advantage. Every time

the river is high, they're allowed to dump more into the river to contaminate it and get rid and that's what I'm concerned about.

MR. SMITH: Bob Schuler is here from Quantum, who is familiar with their existing permit and their plant operation. Can you shed any light for us on that, Bob?

MR. SCHULER: I can. The NPDES permit is in a majority of cases is not related to flow. It's related to concentration and does not take into account the river flow. It is based on the lowest flow that you can get, ensuring that you don't exceed a worst case at the lowest river flow.

MR. BOROTA: But you release according to the flow of the river, right?

MR. SCHULER: No. That is not what I said.

MR. SMITH: Yes. Mr. Hintz.

MR. HINTZ: How many GPM gallons have you dumped in the river now, may I ask?

MR. SCHULER: It's variable. The average permitted flow is about 2.1 million gallons a day.

MR. HINTZ: And is that the maximum that you can dump into the river?

MR. SCHULER: No. It's not the maximum.

MR. HINTZ: Is it monitored, that water that you are

dumping in now?

MR. SCHULER: Yes.

MR. HINTZ: Do you ever get into the outlet of the river where it goes in?

MR. SCHULER: I don't understand.

MR. HINTZ: When your sewer line or whatever you call it goes into the river, have you ever monitored beyond that point?

MR. SCHULER: The monitoring point is where the water goes into the pipe that goes into the river.

MR. HINTZ: Do you ever monitor that pipe where it dumps into the river?

MR. SCHULER: It has been. But, not recently.

MR. HINTZ: I think you should. I've been down there within the last half a year. It's terrible.

MR. SCHULER: That simply is not true.

MR. SMITH: If there were some follow-up questions on the discharges to the river to be pursued with Iowa Department of Natural Resources, who would Mr. Hintz or other people contact?

MR. HAAGE: Probably Wayne Farrand.

MR. SMITH: Wayne Farrand. Could you spell that for us, please?

MR. HAAGE: F-A-R-R-A-N-D.

MR. SMITH: Wayne Farrand at IDNR. That's what

I'm understanding would be the person to follow up on that.

Okay. Any other questions or comments?

Yes, sir. Could you please identify yourself?

MR. MENSINGER: Yes. My name is Robert Mensinger (ph). I came in late. I read in the paper the chemicals, chlorine, naphthalene, pyrene, xylene. How are these chemicals synthesized at this facility. These are typically coal tar derivatives.

MR. SMITH: Right. Maybe someone can explain how in the process these come to occur and are generated as part of the waste, or in the process Chemplex used.

MR. MENSINGER: I think another was anthracene.

MR. SMITH: Right. The PAH's.

MR. MENSINGER: These are typical coal tar compounds.

MR. LUNDBERG: Yeah. But they are also found in many cases where you have combustion or cracking processes also. It's not exclusively coal tar.

MR. MENSINGER: How could you have all that breakdown.

MR. LUNDBERG: But it's not all breakdown. Some of that is synthesized.

MR. MENSINGER: Anthracene is pretty heavy stuff.

MR. LUNDBERG: Yes. It is. Xylene is not one of those compounds, by the way.

MR. MENSINGER: I did see it in the paper.

MR. LUNDBERG: Well, it may be in the paper, but xylene is not one of the PAH's.

MR. SMITH: Maybe there is somebody -- I'm sorry. I just wanted to try and get us some help from somebody from the company who may be more familiar with the process.

Steve. Or somebody from Quantum. Bob, are you familiar with the process to know how the PAH's were generated in the waste initially?

MR. SCHULER: There were trace quantities generated by the cracking process. As I have already said, any time you have combustion or a breakdown of hydrocarbons it generates more. They're generated in your internal combustion engine in your car. They're generated when you burn wood in your fireplace.

MR. SMITH: So what are they cracking to make this -- is it petroleum?

MR. SCHULER: It's gases. Methane, propane primarily.

MR. SMITH: Gas, natural gas.

MR. SCHULER: No. It's not exactly natural gas.

MR. SMITH: Okay.

MR. MENSINGER: I would like to see an equation for that. What are the limits of this stuff? And have they been exceeded. Were they toxic or have they exceeded the limit that is allowable?

MR. SCHULER: You are referring to the location of the waste?

MR. MENSINGER: Well, where ever these chemicals were.

MR. SCHULER: They are part of the process.

MR. MENSINGER: Anthracene?

MR. SCHULER: Yes.

MR. MENSINGER: No, it's not.

MR. SMITH: Okay. Any other questions or comments?

Yes, sir.

MR. MURPHY: I guess I've got one here. I am Alan Murphy. And I am representing the Clinton County Isaac Walton League, and I am also one of the residents of the area.

I heard tonight the main concern from my neighbors out there and that is basically what are we drinking that's going to kill us? And Chemplex is saying nothing. DuPont -- a couple of years ago, we went through the same procedure we're going through now. And they said nothing.

With the exception of a little bit of arsenic showing up here and a little bit of TCE showing up there. And we've also now got another company to our north that's right now got some pretty nasty ammonia spills coming out upon the surface of the ground which the DNR is aware of.

We were out last February, I believe it was. We took soil samples and so forth. And it was a rather alarming amount of ammonia being generated out of the ground at two different points on the John Doty farm.

Basically I guess is what I am trying to say is we can't point out finger at the people at DuPont. We can't point our finger at the people at Chemplex. We can't point it at Arcadian. We can't point it at the two sanitary landfills that are on either side of us.

But between the five sites, we do have some problems out there or we wouldn't be here tonight, any of us, if there wasn't problems in the area.

And it seems to me, and I asked for in my letter on the DuPont clean-up, was looking at what was the possibility of getting us some city water so that even though we're held hostage in the area because of the land values diminished over the years from the adverse publicity of all these Superfund sites and that, at least we can be provided with clean water.

And it seems to me it isn't DuPont's problem. It isn't Chemplex's problem. It isn't Arcadian's problem. It's everybody's problem. Everybody who's involved with the landfill sites around there.

I visited with the city council on this. And they said, well, yeah, we'd really like to get clean water out there. But the city can't afford to get it there.

Well, it seems to me a combined effort could be generated through these hearings and maybe get something out there to us so at least we know we're drinking clean water out there.

We're just going to have to live with being held hostage as far as being able to ever sell our properties out there because the publicity from just hearings like this would deter anybody from coming and buying.

But at least we would have controlled quality water coming to us and we wouldn't be guessing every three months now. They sample our water every three months and it's been greatly appreciated. It's approximately 30 days after they sample that we get the results back. And we've got a four month exposure between samplings that we could be ingesting something harmful.

And we have heard tonight -- you know, Jim's

well showed up 30 parts per million or billion of arsenic. And I visited with Peter Cicero, of the Hygienics Lab on this.

And he says, today 50 parts is considered hazardous to your health. But there's nothing saying that five years from now, 20 parts isn't going to be proven to be hazardous to your health. These are unknown figures.

Your brought it up earlier that, to the best of anybody's knowledge today, yes, these are the figures that we can safely ingest. But five years from now, we might say, whoops, we shouldn't have ingesting half of this amount.

So, like I say, I requested in my letter that we sent to Washington, D.C. to the judge on the Dupont hearing and it will be incorporated in my letter again. But I think some harmony ought to be set up between the parties that are responsible for these hazardous waste sites and get us something safe to drink.

At least we can have that much out there.

Thank you.

MR. SMITH: Thank you.

AUDIENCE: And we shouldn't have to pay for it either.

MR. SMITH: Let me address again the multiple

comments. I appreciate that.

MR. HINTZ: I got one more thing to say.

MR. SMITH: Okay.

MR. HINTZ: Everybody involved out there can do what I did. I've been paying taxes, a big share of money for 30 years. And I just sold my house, my property for $1,200 cash.

How would you like to sell your house for $1,200? How would anybody like to. There is nobody out here in that area can't afford to give away a house like I did.

The year after my wife died, a little bit after a year, I remarried. And I live in Clinton now. Hopefully, I'm drinking clean water. But I still have feelings for my area down there.

MR. SMITH: Okay. Let me --

MR. HINTZ: But I have been paying all these taxes all along.

MR. SMITH: Okay. Let me respond to Mr. Murphy first and then we'll get to that one.

A number of issues you raised regarding the company to the north with ammonia spills. And I had inferred when you were talking about that that it was Arcadian.

And in ammonia that had showed up on the John

Doty farm, that's the same place where the beads were reported to be disposed of?

MRS. PAYNE: Yes.

MR. SMITH: That's spelled D-O-T-I-E?

MRS. PAYNE: D-O-T-Y.

MR. SMITH: D-O-T-Y? Okay. Now, the State and EPA split up lead on a number of these sites. And most of the work on Arcadian has been done by IDNR to date. But I'm not sure that they have the people here who are familiar with and who have worked on that site.

Can either of you address --

MR. LUNDBERG: The field office --

MR. MURPHY: Jim Seevers went to the field with me. He wrote me a letter, I want to say last -- I want to say April or May. And, in his letter, he said that he was referring anything further to a gentleman that was working directly with Arcadian now and that he would be getting in touch with me as far as what was happening in that over there.

This was actually to the Isaac Walton League versus myself personally. I am president of the Isaac Walton League, so he was communicating with me. But at this date, I have had no response from them.

MR. LUNDBERG: Well, there is miscommunication there because I am "that gentleman".

MR. MURPHY: Well, Jim said you would be getting a hold of me and letting me know what --

MR. LUNDBERG: We are working with Arcadian to investigate Arcadian's ground water problems. That's still in its infant stage right now.

MR. MURPHY: Okay. Well, see, that flow -- I don't know if you've been over and examined it or not, but that flow is draining directly in a rather large stream of water and is flowing out all the time directly into Rock Creek.

And the Isaac Walton League was looking at some marsh land down there and possibly purchasing that. And we got in contact with your organization to see if there could be any adverse effect to the wildlife and so forth in that marsh area with the amounts that were coming in.

And evidently the pollution rate is keeping it from being harmful at this point. But there is one area that's half the size of this room that's completely devoid of vegetation at all. And running the stream probably -- at the time we were there, about four, four and a half inches wide and it appeared to be a half inch deep directly into the creek.

The other area, you could put about three or four rooms like this in. Now, that's directly to the south of the railroad tracks. There is probably a buffer

zone of about 100, 150 feet to the railroad tracks to where this ammonia is bubbling out of the ground and entering directly into Rock Creek.

And that's a major concern.

And that's why we're anxious to hear something and see what is involved here. Now, in the meanwhile, we're out of the picture as far as purchasing any of that marsh. We have an active interest in the property.

But, still, it's in the general area where I live. It's also a fantastic wildlife area for the area and we hate to see something like that go unchecked.

MR. LUNDBERG: If you want to, we can talk about that afterwards.

MR. MURPHY: Very good.

MR. SMITH: Thank you. Your next point was what about getting some city water out there through a combined effort of the companies and the landfill operators and the residents.

The short answer is that's probably not a bad idea. That's a pretty good idea. But I can't say that in my role necessarily as an official from Superfund because we don't have the legal authority to either do that or require the companies to do that or to require you as individuals to do that because the levels of contamination that we're seeing there are not high enough

to trigger that kind of an action.

As we have said, they are below any of our established action levels. But it sort of ties in with your next point, which is that from time to time, new health effects data does come out. And we have to review that data and revise our action levels, either up or down, depending on the new data shows.

And sometimes they go up, sometimes they go down. We can't predict at this point in time which direction they're going.

And about all I can say is that it would be prudent for that to be done. In other words, for the water supplies to be replaced by a safe central supply. But I'm not in a position to do that for you or require any of the companies to do that for you at this point.

But, to the extent that that could be done voluntarily, I would think just as a matter of good engineering practice, it would be a wise thing to try and consider and to try and do somehow.

I appreciate your acknowledgement of appreciation of the sampling. We, too, appreciate the efforts of University of Iowa, University Hygienics Lab in doing that sampling.

I want to recognize them for that tonight and the cooperation on the part of the county health

department, which they are not here to thank, unfortunately. But we appreciate their work, too.

I already addressed the issue about how safe levels can change over time.

And then, if that covered all yours, Mr. Murphy, Mr. Hintz' comment regarding having to have sold property for $1,200 is, of course, something that falls into the same category as the drinking water, an alternate drinking supply.

It's not something, unfortunately, that we have any legal authority, at this point in time, to do anything about. So, again, I am sorry about that.

But we're limited in what we can do or require the companies to do in that regard.

Are there any other questions or comments? Yes, ma'am.

MRS. PAYNE: How long has the EPA been involved in monitoring Quantum or Chemplex?

MR. SMITH: And you are Mrs. Payne?

MRS. PAYNE: Mrs. Payne.

MR. SMITH: How long have we been monitoring the dump sites there? Quantum's and Chemplex's you referred to.

MS. JOHNSON: I know that investigations there started prior to 1984.

MR. SMITH: When was the site proposed for the NPL?

MS. JOHNSON: It was proposed in 1984. So there were some limited investigation that took place before that to score it on the NPL. It probably started in '82, '83

MRS. PAYNE: That's what they had to file to take out a dump site there on the Chemplex property, is that what you mean? Do they have to get permission from you to have a dump out there?

MS. JOHNSON: No. To put the --

MR. SMITH: When that was done, there weren't many or any regulations concerning where you put dump sites.

MS. JOHNSON: That's right. That was in '67 when they started dumping waste in that landfill. And they dumped waste there until '78. Superfund didn't even come about until 1980. And RCRA didn't come about till then either.

MR. SMITH: Yes, sir.

MR. SNYDER: My name is Jim Snyder. And I am just wondering regarding what you just said, Nancy, concerning the time frame of the dumping, if you want to call it that, occurred. Does that make Skelly or ACC civilly or criminally liable for those actions?

Or are we saying that they have no culpability then because they violated no federal or state dumping regulations that were in place at the time?

MR. SMITH: Well, you have a couple engineers answering a legal question. But I will try to do the best I can.

The answer is kind of yes and no. What they were doing in operating the landfill was, at least as far as we know, legal at the time it occurred, back in the '70's and even up until the early '80's, perhaps back into the '60's.

And this is true of not only this landfill, but also the one at DuPont, for instance, that's also come up here.

And so, in that sense, what they did was legal at the time it was done. If they were to do it today, it probably would not be. But the law is not retroactive in that sense.

However, Superfund is a unique environmental statute in that it reaches back for these older facilities and says that if there are hazardous substances there that are hazardous enough and a release occurs, that the companies that place the wastes there in the first place are responsible for doing the studies and the clean-up actions basically.

There are no punitive measures in the law as long as the company does that, in cooperation with EPA. And, hence, there is no criminal sanctions or penalties that come into it. Unless a company knowingly lies to EPA or fails to notify of a spill or a release or a dump site that they know about, then there are potential for criminal sanctions, penalties.

But that's not in any way -- there's no indication of that here at all. There is another provision where if companies refuse to voluntarily clean up the sites, we can order them via a legal administrative order process to do the clean-ups.

If they refuse to comply with that order, then we have a number of choices. We can go to federal court to get them -- to compel them under court order to do the clean-up. We can do the clean-up ourselves and recover not only the cost of the clean-up, but three times the cost of the clean-up, plus numerous penalties on top of that.

And there are some other alternatives. But that's not happening at this site. To date, and we hope into the future, we will continue to enjoy the cooperation on the part of the company who has spent a lot of money doing the studies and the design and the clean-up work so far.

But those are the aspects of the law that we have available to us. Is that accurate enough?

MR. COZAD: Yes.

MR. SMITH: Okay. Thank you. Any other questions or comments? Yes, sir.

MR. SNYDER: I have a question about the action levels that you discussed at the wells that were tested in the private sector, so to speak.

Over the plant site itself in the ground water, are the test results there, do they indicate statistically significant levels that would be much higher than acceptable as far as your minimal allowable concentrations? Isn't the ground water right over the Chemplex site, which is now Quantum, are the levels you discovered there significantly higher?

MS. JOHNSON: Yes.

MR. SMITH: The levels in the ground water beneath the site.

MR. SNYDER: It truly would represent a health hazard?

MR. SMITH: Yes. If someone were drinking that water or using it for other purposes, yeah, it would be a problem. They are well over these MCL's we keep talking about, the magic numbers or action levels, they're well over those values.

And that's part of the reason that action needs to be taken so that years into the future, that won't spread and contaminate a larger area than it already has.

MS. JOHNSON: That's correct.

MR. SNYDER: So confinement is part of the game plan?

MR. SMITH: Right. Any other questions or comments?

MR. BOROTA: What do they do if they do on-site construction at the facility. What if there is something in the ground and they know it exists, maybe you guys don't know about it. They went in there and a construction worker was in there working and they run into this, say, fumes coming out all of a sudden and they breathe it?

MR. SMITH: Well there are two answers to that. One is that there will be access controls and access restrictions on the areas at the site that are known to be contaminated. And it will be the responsibility of the property owners and the company, that being the city and Quantum, to ensure that their workers aren't exposed -- don't get into those things accidentally and are injured.

That was part of one of the remedies, part of the selected remedy that I think Nancy had described

somewhat earlier.

The other part of the answer is that Quantum, and, here, we probably ought to let Bob Schuler address it. I assume has some kind of internal health and safety protocol and rules and controls in place to address that kind of thing for construction on their site.

That's typical in an industrial installation. but maybe you can probably address it better than I.

MR. SCHULER: Quantum does indeed have health and industrial hygiene programs. Any excavations of the grounds will be controlled and monitored.

MR. SMITH: Does that answer your question?

MR. BOROTA: Yes. Thank you.

MR. SMITH: Okay. You're welcome. Any others?

Okay. As Nancy indicated, if there are any other questions or comments that occur to you, the comment period is formally open until February --

MS. JOHNSON: 21st.

MR. SMITH: -- 21st. So please send them to the address that's available on the handout that's available over there.

I want to thank you all very much for coming out and for providing the input and your comments tonight. It's been a very useful part of the process. I think you very much.

One more. Hold on.

MR. SNYDER: You mentioned earlier there was some other documents here available if we wanted to look at the proposed plan.

MS. JOHNSON: That's right. We have the extra proposed plans over at that desk.

MR. ARMSTRONG: We also have a explanation of the risk assessment process.

MR. SMITH: Thank you all very much for coming, and good night.

(Whereupon, at 9:25 p.m., the public meeting was concluded.)

CERTIFICATE OF REPORTER

This is to certify that the attached proceedings before: ENVIRONMENTAL PROTECTION AGENCY REGION VII

In the Matter of:

PUBLIC HEARING

CHEMPLEX FACILITY
Clinton, Iowa

Docket Number:

Location: Clinton, Iowa

Date: Tuesday, February 2, 1993

Presiding: Mr. Craig Smith

were held as herein appears and that this is the Original transcript thereof for the files of the Department.

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