PUBLIC MEETING

PEOPLES NATURAL GAS

SUPERFUND SITE

DUBUQUE, IOWA

EPA REGION 7

JULY 8, 2013.

Renee L Fokken

(Whereupon, the following proceedings were had, to-wit:)

MR. WASHBURN: We'll go ahead and get started. First of all, thank you guys for coming tonight. It's really nice out. I'm sure there's other places you'd rather be, but thank you.

I'm Ben Washburn, community involvement coordinator for the Peoples Natural Gas Site. I'm here tonight with Diana Engeman who's the project manager and Bob Richards who is the site attorney. So we have a couple people here who know what's happening with the site.

Tonight we're here to talk about the proposed plan for the site, really just take some public comments, public input. The public comment period will be open until July 25.

So with that I'll turn it over and let Diana talk about the site.

MS. ENGEMAN: And I think many of you are aware, but we do have a court reporter here because we are taking public comments, and so we want to make sure that we have a accurate record of what's transpired. If you ask a question, she is likely to ask you to give her your name so be prepared for that.

Okay. So we're here to talk about the Peoples Natural Gas site. The topics that we're going to cover are a little bit about the Superfund process for those who may not be familiar with it, a little bit of site history, and there's a lot of history on this site. There's some people in this room that probably know way more of the site history than I even know, so I'll give you just a little piece of it. We'll talk about this particular proposed plan. We'll describe the alternatives that we considered and the alternatives that we have selected. We'll talk about some future actions of the site and then some information about the public comment period.

Okay. The Peoples Natural Gas Site is a Superfund site. So what is Superfund? It was a law passed in 1980 when there became abandoned hazardous waste sites in the United States. There wasn't any particular body of law made to get them cleaned up or to pay for the clean up of them. So congress enacted this law that has a very long name that's up there, Comprehensive Environmental Response, Compensation, and Liability Act, which we normally call Superfund. It got that nickname because of one of the provisions under that law. They gave us the

authority to clean up sites and also establish a trust fund commonly called Superfund to pay for clean ups.

And in the situation where there are no parties that are legally responsible for the site and there's conditions laid out in the law that say what the responsible parties may be, then we can tap into this fund to clean up the site. The fund was created by a tax on the chemical petroleum industry. The tax has expired. Congress has not reenstated the tax so it now comes out of revenue.

In the case of this site, though, we have responsible parties. They are not only doing the work at the site, they pay for EPA's oversight of their activities at this site.

The goals of Superfund are to protect human health and the environment. One of the goals is to involve the community in the clean-up process, and that's part of why we're having this public meeting tonight. Then ultimately we'd like to return previously polluted land back in to some type of productive use. That doesn't mean that it might not be somewhat limited because of what might be remaining, but there's lots of uses that can -- can take place even when there are restrictions.

Okay. So as part of the process, the first is to investigate what we have at the site: What's contaminated; is it soil; is it ground water; is it surface water; is it air? One of the steps that falls into that is if they are polluted, do they pose any risk to anybody or to the environment? Once we know that information, then we can develop alternatives for cleaning up the site. Ultimately after all of that's done, EPA selects a preferred alternative, and we publish it in a proposed plan, and it goes out for public comment. We're required to give the public a 30-day public comment period, then we can get oral or written comments on that proposed plan.

Ultimately we will select a remedy in a document called a record of decision after we consider the public comments. And in fact we'll say a little more about that on the next slide, that record of decision which we call -- we tend to call it ROD to give it a short name. It includes all the public comments and our responses to the comments.

Sometimes there's no change in the preferred alternative. The remedy we select is the one that was in the proposed plan. Sometimes there are changes that maybe doesn't entirely change, but

it does change somewhat based on public comments and sometimes we have to come back out and propose something entirely different after we receive the public comments. All of those situations have happened on sites in our region. The ROD provides a little more site history than the proposed plan, and it also provides all the facts hopefully to support our selective remedy.

Now, at this site, at the Peoples Natural Gas Site, we already selected a remedy back in 1991. So we went through all those steps, we selected a remedy, and what we are doing now with this proposed plan, we're going to amend that remedy. I'll explain more as I get into the details of the site, why we're doing that.

I suspect that a good many of you here already know where the area is we're talking about, but it's this area down by Kerper Boulevard which is running along the top of the slide and down under kind of this corner of Highway 61. So it kind of encompasses this piece of property where the city used to operate the public works garage but does not any longer, and it runs over -- sort of under where part of Highway 61 is.

I believe the site was actually found when

they did some of the initial borings for that construction, that new part of Highway 61. The site was the location of what's called a former manufactured gas plant that operated from the 1930s to about 1954. That was a method of taking coal or oil, heating it, and turning it into gas that could be used for lighting, cooking. When you hear of the old gaslights that were street lights in a lot of communities, that would have been gas from a plant like this. And to have one of these in your community was a sign that you were kind of progressive and you now had piped-in lighting and heating for your home.

When natural gas pipeline came to this part of the country, these manufactured gas plants generally were closed. They operated at a period of time when there wasn't really any sort of regulation or much of an idea about how best to dispose of the waste products from the production of this gas. The state discovered the site about 1983, I believe that was when they were doing the initial borings for the Highway 61 construction, and then EPA became involved in 1986 at the request of the state.

In the course of the investigation, it was discovered that there was soil and groundwater

contamination due to what's called coal tar it was discovered. Coal tar is kind of a common name for a by-product with the production of this gas. Most people have some familiarity with it because it's kind of -- it's very similar to the stuff that is used as roofing tar, it's very similar to the stuff that's used to seal roads. I have an asphalt driveway, we buy it in buckets every few years and reseal our driveway. It's a fairly complex mixture of some chemicals with very big names called polynuclear aromatic hydrocarbons, we refer to those at PAHs so we don't have to say that big, long name. There's a whole bunch of those compounds that fall in that class. They're very large chemicals, they're fairly complex chemicals, and some of them are very toxic chemicals. They're also several volatile organic chemicals, primarily benzene, toluene, ethylbenzene and xylene which are called BTEX that are found at these sites. Those PAHs are really some of the nasty compounds that are found in cigarettes. The tar from cigarettes is composed of the same compounds.

Okay. There is a type of action that can be taken at a Superfund site called removal action. It's usually something that's done when there's a

very short-term action needed to come and address a particular problem that you can come in, take care of, be done with and gone in a short period of time. And a removal action was done to address the soil in the area where Highway 61 construction was going to take place. That was done in 1989 to clean up the soil contamination that could be excavated so that that can be done and road construction can begin. The rest of the site was a bit more complicated.

So while that was taking place to clean up the Highway 61 area, alternatives were being evaluated to address the remaining soil contamination over in the area where the city's public works garage existed and the groundwater contamination related to the site. So we went through the process that I described before and the record of decision was issued in 1991.

That record of decision, a short description of that remedy was that contaminated soil was excavated and it was hauled off site and thermally treated. It was actually blended with coal and burned in a utility boiler. For the contaminated groundwater, there was a system put in that we call usually pump and treat, meaning that there were wells and pumps put in to suck

contaminated ground water out of the ground, run it through a treatment system, and then it can be either put back into the ground or into a sanitary sewer or storm sewer. And there was one other component of that which was a system where essentially ozone was blown under the ground and then a vacuum system applied to extract the contaminant vapors that were driven out to try to further get more contamination out of the soil and groundwater.

In 2003 a decision was made and approved by EPA that we would shut down the pump-and-treat system and the ozone treatment and the vacuum extraction system because we were never going to get the clean up done that was expected of that remedy.

There were a number of reasons why in terms of the pump-and-treat system for cleaning up ground water: There was far more residual contamination that could not be excavated because it was way deeper than it was physically possible to excavate, particularly under water, than was previously known. And the chemistry of the water in that area has got a tremendous amount of iron, it's got other issues related to the contamination that cause the extraction well to foul up sometimes

within days of trying to clean it out and get it running again. The extraction well fouled up, the soil around it fouled up, the treatment system fouled up, all the piping fouled up, it just wasn't a workable system. The last component, the ozone treatment vapor extraction, while it did help, it did remove some contamination, it was an extremely expensive system that was removing contamination, but it was never going to be possible to get all of the contamination out. So we decided at that point, we got to relook at this and figure out what we can do different because this isn't working.

So over a very lengthy period of time between 2003 and 2012, there was -- it may not appear like it, but there was a considerable amount of work that was done on this site: Various investigations; there were numerous treatment approaches that were tried; there were pilot studies done to see if there was a way that could be found to clean this contamination up. Out of those multiple alternatives that were evaluated, and I'll describe those, they're all -- the ones that had at least some chance of maybe being effective, they were considered or presented in this proposed plan.

Now, before I go through all those, I'm

going to try to use these diagrams, and maybe I'll move them over closer. It's not a very big crowd. Let's see if I can better explain what's going on here.

I'm going to start with this diagram that shows you a conceptual model of what it looks like underground at this site. See this diagram, it shows a red area here. That's approximately where the site is. This is the levy here so Kerper Boulevard would be right in between there. So right -- the good bit of this soil across the site was removed. That shallower soil is gone, pretty much except for underneath where the public works garage sat, and there's a sewer line through there, but a good bit of that soil was dug up and removed.

Then we hit this layer that's referred to as upper confining unit which is -- it's a layer of clay and silt, but it's very dense, and contamination doesn't to want move through it quite as well. Then we hit in just a small area that's pretty much just near the site, what we refer to in our report as the silty sand aquifer. That's an area that's got groundwater in this, and that's the one that's very contaminated. Then there happens to be another very thin confining unit of clay that is

tending to keep contamination that's up here from getting down into this main body of the aquifer, that will be the top -- the shallowest main water producing aquifer. As you see, when you look at the edge, this upper confining unit actually runs out through this one, and I'm not sure -- it's not exactly showing -- it tends to lip up when it gets too -- over near the Dove Harbor. So this is the area that's got the groundwater that's heavily contaminated. This groundwater for the most part is unaffected.

Now, when you look at this diagram of the site, you'll see a couple of things, these colored lines, and I'll point out which is which, show areas where the contamination of a particular contaminant is higher than a certain level. So inside this green circle, the levels of contaminant call naphthalene, that stuff you smell in moth balls. It's one of those PAHs. It's actually the most mobile one. It's the one that can move around the most. It exceeds 100 micrograms per liter.

To give you an idea of what 100 micrograms per liter is, it's like a 100 parts in a billion. So 100 micrograms per liter would be 100 little balls of naphthalene in a million balls that don't

have naphthalene. The green circle is 5 micrograms per liter of benzene. Anything inside that circle is 5 micrograms per liter or higher of benzene. Naphthalene has a regular -- or benzene has a regulated level in drinking water. It cannot exceed 5 micrograms per liter in drinking water for water that's delivered to somebody through the ground. There is not a regulated drinking water level for naphthalene, however, we can calculate a level that would pose a threat to health, but this is done to give you some idea of where the contaminated groundwater is in that layer that I showed you called the silty sand top level. So this kind of shows you that it's mainly on this property there. We'll talk about this other one in just a minute.

CHUCK ISENHART: Can I ask a question?

MS. ENGEMAN: Sure.

CHUCK ISENHART: You talk about no regulated level, is that another way of saying there shouldn't be any?

MS. ENGEMAN: No, it's not. There just are not regulated levels for every single chemical that you can ever -- that you could ever detect. There probably are literally -- I know

there's literally thousands of chemicals that can be detected, there's not a regulatory level for every single one.

CHUCK ISENHART: Is that another way of saying that it's so rarely found in drinking water, it's never been an effort?

MS. ENGEMAN: I do not know how those chemicals that are regulated in drinking water are determined which ones were selected. I don't know whether --

MR. RICHARDS: Well, I mean -- I'm Bob Richards, the attorney. They have to be based upon science and presented before a board and determined before they're used. And I think, you know -- I'm not a scientist or anything, but there are certain chemicals of this catalog of thousands of chemicals where many are associated with each other. If you have one at a level that requires action, you're going to be addressing the others.

MS. ENGEMAN: That is true. Frequently there are more compound than relative than if you get that one for picking it off. I can't tell you for sure exactly why one has it and one doesn't; however, in Superfund actions are taken based on risk, and so we have to comply with

regulated levels. We also calculate risk-based levels or those compounds do not have regulatory levels, and we set clean-up levels for those as well. So they don't get overlooked, they just don't have a clean-up level set in law, specific number for a compound.

Okay. Now, let's talk a little about the alternatives that got evaluated for this site. We always have to look at no action, that's a requirement set in the law. It's like a point of comparison for everything else. We have to say, okay, we're just not going to do anything and what will that cost? Nothing. What's going to happen if we don't do anything? Well, a lot of bad things are going to happen.

The other alternatives -- and I'll explain these in much more detail, institutional controls, and I'll describe those more thoroughly. You'll see that all the rest of these alternatives, the other five, all have institutional controls. Institutional controls are things like ordinances, easements, covenants, deed notices. They're usually notices or use limitations on property or on a resource.

The first one has -- first alternative

evaluated was institutional controls with additional excavation, so look at going out -- would it be possible to go out and dig up some more stuff, would we access some more stuff somehow, dig it up, treat that, and what would be the effect on particularly this groundwater contamination that was still there. The cost for that by the way was estimated to be about $2.4 million.

The next thing considered were institutional controls with in situ solidification. What that would involve is usually they use augers to auger a cement-like product down into the contaminated area, and it will bind up the contaminated material there. So we looked at that as an alternative. That one came with a price tag of about $3.7 million.

The fourth one was institutional controls with in situ thermal remediation. This instead of digging soil up and thermally treating it somewhere would be leaving the soil in place and trying to heat down below to address the contamination. That's very difficult to do when you're down below the water table when the soil is saturated because you can't get it any higher than the boiling point of water, and unfortunately these contaminants have

got very, very high boiling points. They're very hard to address when you can't get any higher than the boiling point of water. That came with a price tag of about $3.4 million.

Next was institutional controls with monitored natural attenuation. What that means is natural attenuation are the biological processes that are naturally occurring that will naturally break things. There are actually conditions down in the soil and in the groundwater that will cause really undesirable compounds to break down naturally through biological processes. If you do that, you want to monitor it to see that it is occurring and that contamination is not spreading while that's taking place.

And the last alternative considered was institutional controls with what's called hydraulic containment and monitor natural attenuation. Hydraulic containment is a fancy word for -- fancy way of saying that you would pump something to try and control the movement of contaminants. I'll explain that a little more with a diagram, but before I explain what that hydraulic containment consists of, I want to tell you that the Alternative 5 was about half a million dollars, and

the institutional controls with hydraulic containment and MNA was $1.7 million.

Now, here's the problem with every one of these, not one of these alternatives would clean up all that groundwater contamination in a reasonable time frame. So we had to look at what is called -- it is laid out in the Superfund law, it's called a technical impracticability waiver. There are times when the site conditions prevent clean up of groundwater in a reasonable time frame, and we pursue what is called a technical impracticability waiver. It is granted for a specific area, not only the area on the top, but the area how far into the groundwater that you're going to waive the requirement to meet all those regulated clean-up levels. However, if we do that, the remedy still must be protected, and that means we have to use some method other than cleaning up all that contamination to prevent exposure to people.

So for this site, we have pursued getting technical impracticability waiver for the silty sand aquifer. I'll show you, I think maybe just have one we call the TI zone, but it's on here too. You'll see that the area that we would include in that is this black circle that goes outside of all of those

areas that have higher levels of contamination. So what that says is that if we have a technical impracticability waiver inside that line and only in that silty sand aquifer, we would not be able to get it cleaned up to these levels. We would not let anybody in that level of contamination, but in the areas outside of that, the areas down below that silty sand aquifer, that requirement would be met. Maybe someday there will be a way to address that contamination that we can't get out of there, but right now there's not a way to do it.

On top of that, actually some of the things that we could try to do, even some of these alternatives that we consider, they actually present a fairly high risk of damaging this very thin layer that is keeping contamination from going deeper, and it is a very thin layer in some places. If I remember correctly, and maybe some here who remember better than I do, I think maybe it's thickest it's 4 feet and thinnest it's about 4 inches.

Is that in the right neighborhood?

KEVIN ARMSTRONG: Yeah, I think so.

MS. ENGEMAN: We don't want to damage that, but we don't want this stuff here either.

Okay. So the preferred -- the proposed

plan does present our preferred alternative and our preferred alternative was the sixth one. The institutional controls -- the institutional controls with hydraulic control and monitored natural attenuation.

Now, explain each of those pieces. The institutional controls, there are already some in place on this site, we probably will update those to more current controls based on the more current state law with what are called environmental covenants, and this will be on property that the city owns and actually backed on the property that the Iowa Department of Transportation owns where Highway 61 is.

Those are -- environmental covenants are placed on the deeds for the property, they describe the limitations for use which would be things like no wells installed in those areas, no excavation below a certain level, it will be limitations on certain types of construction. There also will be written notices of state, county, and city about the groundwater contamination various entities that may permit wells. It certainly doesn't hurt to provide them with written notice, and we are aware that the city is proposing a new city ordinance to place some

limitations on well installation which will be very helpful as well and would prevent anybody from placing a well in a place we don't want it.

The hydraulic control would involve putting some extraction wells between Kerper Boulevard and the levee. That's a pretty thin strip of ground there, but these would be some wells that would operate in very, very low level which we either spend time getting testing done that looks like maybe that could be done and capture that leading edge of the groundwater to keep it from ever wanting to move towards Dove Harbor without fouling up the wells immediately like it did in the past. That water would either be discharged through the sanitary sewer for treatment with permit through the city or, if necessary, a treatment system would be built right there at the site.

It may be necessary to inject some compounds down near those wells. They're called sequestering agents, but they would help keep those wells from plugging up. There's some compounds that can be injected near those wells that help keep that from happening. So that would capture anything if there was a concern about it moving toward the river which is the direction that that groundwater flows.

Monitor natural attenuation on its own really can't even begin to address the amounts of contamination that exist in the groundwater at that site or the residual contamination in the soil, but it is working. That's part of the reason that the area of contamination has really not gotten very big -- much bigger since the 1930s when contamination first got disposed of at the site. That is one of the things that controls how big that area of contamination has gotten.

So we want to acknowledge and take advantage of the -- the fact that that is taking place, and there will be monitoring done to ensure that it's continuing to take place, that the conditions underground are favorable and that that area outside the technical impracticability zone is still clean.

Okay. So in the future after the public comment period is over and we've received whatever comments we're going to receive, we address those, and whatever changes need to be made will be reflected in a record of decision amendment. We will amend that 1991 record of decision. The hope is that that will be done by the end of September of this year. After we have that amendment or record

of decision, then there's got to be plans done, it's called a remedial design. The plans specifications for how to do what we selected, those actions will be spelled out just like they were in the ROD, but it will include the detail of how you construct this thing or how you're going to operate it, how the sampling is going to take place. Once that design is complete, the hydraulic control system will have to be constructed, then it will begin operating, and sampling or monitoring will continue until clean-up goals are achieved.

Now, realistically in this site what will happen unless there is some new revelation for how to address the contamination under the ground is there will be sampling and monitoring will go on forever, one of the steps of the process in Superfund that I didn't put in here is that for sites where we don't leave them in any use, where we can just walk away and anybody can do anything they wanted with that property. If we don't leave it in that condition, then it is required by law that there be a 5-year review of that remedy to determine is the remedy working the way it's supposed to, and is that remedy still protective? This site is already in that process and will continue to be in a

that process of those reviews as long as the site can't be used for any use -- any possible use anybody can think of.

I think Ben said at the beginning the public comment period started June 26, it runs through July the 25th. Those comments will be included in the record of decision amendment.

If we get comments tonight, that's why we have the court reporter here, they will all be recorded. We will try to answer questions you have now. If you have a comment on the remedy we can't address or question we can't address, we will try to address that in the record of decision.

That's how you can reach either Ben Washburn in our office of public affairs or myself.

That's all I have, but I will be glad to answer questions.

CHUCK ISENHART: Pay is 1.7 million associated with this action?

MS. ENGEMAN: Okay. We have -- there is a consent decree in place on this site that is by four parties with the United States. They are -- well, it was Midwest Gas, but it's MidAmerican Energy Company who's here and has been doing work on the site and paying the site bills for a very long

time. The other parties to that are the city of Dubuque because they are current property owner of every piece of the site; the Iowa Department of Transportation who is one of the other property owners of Highway 61. The fourth one is Enron Corporation. And Enron I believe bought one of the companies who operated at the time of disposal. They essentially no longer exist, but the entity that's been doing work the whole time is MidAmerican Energy. And really the consent decree that is in place now really covers these actions that are proposed as well.

CHUCK ISENHART: MidAmerican paying the bills --

MS. ENGEMAN: Yes, they are.

CHUCK ISENHART: -- for what's proposed here?

MS. ENGEMAN: Yes.

CHUCK ISENHART: Would that include any cost the city might incur if water pulled out is put in the sanitary system, or how does that work?

MS. ENGEMAN: No. I know that MidAmerican Energy consultants have been communicating with the city in terms of possible disposal to the sanitary sewer system, and I am not

sure what they have discussed in terms of how the city may or may not be compensated for it.

THE COURT REPORTER: What's your name, sir?

CHUCK ISENHART: Chuck Isenhart.

THE COURT REPORTER: Can you spell your last name, please.

CHUCK ISENHART: I-S-E-N-H-A-R-T.

My only other question involves around limitation on uses of the property, theoretically with this action in place, but future uses, will the property be viable?

MS. ENGEMAN: Well, the city has already discussed the possibility of putting some type of operations system or center for the bus system.

DON VOGT: To relocate our bus system. Don Vogt, V-O-G-T.

MS. ENGEMAN: The type of use they described to me would be wonderful for that property. I don't envision that there would be any problem with that whatsoever.

What will get to be a problem is disturbing things underground. The surface is all cleaned up. The surface has got clean soil on the

top, that part's not the problem. The city doesn't want to go out there and pick water out of the ground, so that's not going to be the problem so that type of use is great.

I will say that the soil levels when it was initially cleaned up were not necessarily cleaned up to such a level that we would be comfortable with a daycare center being put there or an elementary school or somebody's house, but it certainly is a suitable location for that type of operation.

The public works garage that operated there before or if a trucking company wanted to operate out of there. They had a lumber company operating out of there but looks to me like maybe they're not there anymore. I know you had a lumber company. Are they still using part of that?

DON VOGT: Yes.

MS. ENGEMAN: It wasn't obvious from the outside.

There are a lot of operations that could take place there. Properties like this may have public parks, probably wouldn't be a problem there.

Any other questions?

Well, if not, I think we can call it an

evening. Thank you for coming, we do appreciate that.

If you think of something later and you want to call us, send us an e-mail, send us a letter, please do so. Please do it by July the 26th if you want it to be considered -- or 25th if you want it to be considered as the comments on this property.

MR. WASHBURN: Just one final thing, the green card over there is for signing in only if you want to be on the mailing list. If you guys are already receiving mail -- but if you aren't receiving mail about the site, please fill out a card -- if you would like to, please fill out a card, and we'll add you to the mailing list.

(7:53 p.m. - Adjournment.)

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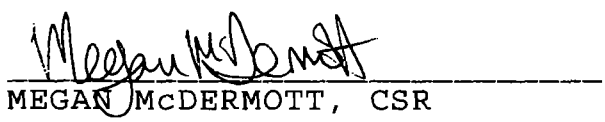
CERTIFICATE OF REPORTER

I, Megan McDermott, Certified Shorthand Reporter in and for the State of Iowa, hereby certify that the witness aforenamed was duly sworn prior to the taking of the deposition; that this deposition is a true record of the testimony given by said witness; that I am not related by consanguinity or affinity within the fourth degree to any party, his attorney, or an employee of any of them; that I am not financially interested in the action; and that I am not the attorney or employee of any party.

To all of which I have affixed my signature this 12th day of July, 2013.



MEGAN McDERMOTT, CSR