PROPOSED RECORD OF DECISION AMENDMENT

ORONOGO-DUENWEG MINING BELT SITE

OPERABLE UNIT 1 - MINE AND MILL WASTE

JASPER COUNTY, MISSOURI

PUBLIC HEARING

Taken on Thursday, August 15, 2013, from 6:33 p.m. to 7:55 p.m., at Missouri Southern State University, in the City of Joplin, County of Jasper, State of Missouri, before

JILL A. RENFRO, C.C.R. 605,

a Certified Court Reporter and a Notary Public within and for the County of Newton, and State of Missouri.

U.S. ENVIRONMENTAL PROTECTION AGENCY - REGION 7

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BY DR. DRAKE: Let's go ahead and kick this off tonight. My name is Dr. Dave Drake. I'll be the hearing officer tonight. We're here for the Oronogo-Duenweg Mining Belt Sites Public Meeting for the ROD amendments. And, any of you familiar with the project, we did the first Record of Decision back in 2004. So there's been quite a lot of cleanup work that's gone on since '04, and we've made a few changes to that old 2004 Record of Decision. So we're here tonight to talk about those modifications, and have a public meeting on the topic. And your input is very important to us. That's why we're here. We're very interested in what you might have to say regarding these changes on the cleanup decision here in Jasper County. So that's the whole point of tonight. So we're really encouraging questions either after the presentation or later on during the public comment period, but that's the whole purpose. This is really set up for you, for the public to do that.

I'll start by just announcing a few people that are here tonight who have been

affiliated with the project. I saw Mr. Tony Moore, who I hadn't seen for quite awhile, with the Joplin Health Department. He's here tonight. I'm sorry. The Jasper County Health Department. I mixed him up with Dan Pekarek who is here from the Joplin Health Department. We have a member from the Jasper County Task Force, Eric Ferrell, who is present tonight. And we have a member of the Missouri Department of Health and Social Services who is here tonight. Lori Harris-Franklin. So those are some outside people from organizations that have been very involved with the project who are here tonight in some type of supporting role. I'll just briefly introduce some of the EPA people that are here. Your main contact after this meeting for public comment purposes is Debbie Kring. Debbie is right here in the blue top. So Debbie is our public affairs officer. She will handle all comments, all of the inputs through the duration of the comment period. So email Debbie, speak to Debbie, just provide your input to her. We also have Jane Kloeckner

here tonight. Jane is the long-time senior regional counsel. She's an attorney working on the project. Has been involved with it for a number of years. Very, very well versed in the topic and the subject. She's dealt with it for quite some time. We have Elizabeth Coffey over here in the corner. Liz. She's assisting tonight. She's a remedial project manager in the Superfund Program who also works over on the Kansas side, Cherokee County work. And we also have Mr. Brian Burnett here visiting who manages the Cherokee County Field Office, all the work in Kansas. And I guess last, but not least, we have the person who is going to be doing all the talking tonight, the long-term remedial project manager of the Jasper County site. Many of you know him. He's been around for many, many years. Very, very experienced, knowledge project manager. He has managed this project for many, many years. Since the inception, really. Basically since the inception. So Mark Doolan is here. He'll be giving the presentation.

Just one other housekeeping item before Mark comes up. Let Mark finish his presentation, go all the way through it, and then when he's done we will have the question and answer period. I'll probably remind you again when we start the question and answer period, we do have a court reporter here, so we are recording all of this and making a transcript. So when we get to the part of the evening where we're doing the question and answer, if you don't mind just to announce your name, you know, clearly so the court reporter can have that, and try to, you know, ask your questions clearly so we can record them all. That way it benefits everyone. Everyone reading the transcript, or involved with it, or us. You know, we can really discern what the question really was, and the answer. So it helps us all out a little later on.

So, with that, Mark, if you want to come up, go ahead and start.

BY MR. DOOLAN: Thanks, Dave. Everybody still hear me okay with this mic? Bill, in the back, can you hear me all right?

Good. So as Dave sort of said already, we signed our original Record of Decision back in 2004 for what we call Operable Unit 1, which is mine waste cleanup of the Oronogo-Duenweg Mining Belt Site. And we need to make some changes to that, so we're here tonight to present those changes to the public. This, as Dave said, is an opportunity for you to provide us comments or ask questions. You can do that here tonight, continue to do that through the comment period.

Just a quick site history. Most of you probably know as much of this as I do, but the Jasper County site into the Oronogo-Duenweg Mining Belt Site is part of the Tri-State Mining District. The district itself covers about two hundred and fifty - or twenty-five hundred square miles in Missouri, Kansas, and Oklahoma. Lead and zinc has occurred in this district starting clear back in the 1850s, continued all the way up, at least I think on the Oklahoma side, up to the 1970s. The best estimates that we have is there was at least a hundred

and sixty million tons of crude ore produced. That's not waste. That's just the ore that went to the smelter for process. Tremendous amount of materials come out of this district. During its hay day it's my understanding that the Tri-State District was one of the largest lead producers in the entire world

The Jasper County site itself covers two hundred and seventy square miles. We now estimate, and one of the reasons we're here tonight is because the volumes have gone up. We estimate that there's at least fourteen million tons of waste residing on the site, and it's covering about eleven thousand acres. Those mining wastes, and the soils, and the ground water, surface water, ponds, streams, were all contaminated with heavy metals, primarily cadmium, lead, and zinc, where they're causing a risk to human health and the environment.

The waste is located in about eleven, what we call designated areas. Here is a map of the site. The extreme northern end up there is the Neck/Alba/Purcell area, all the

way down to Oronogo, Webb City, Carterville, and Prosperity, and then actually clear down into the Wildwood Ranch area down in the southwest corner of the site, which actually extends into Newton County a little bit.

Just to talk a little bit about the site risk and why EPA is here to even do cleanup; clear back in the early '90s we did some blood lead studies in Jasper County, and determined that at least fourteen percent of the children throughout the county had high blood lead, and in some instances, especially around the central part of Joplin, some of the areas we know were as high as thirty percent of children with lead poison.

There was also lead and cadmium in private drinking water wells. The studies that we did indicated that there was a number of wells, especially on the eastern side of the site, where people weren't hooked up or didn't have availability to public water, and they were drinking out of private wells, those wells were contaminated. There is metals in the surface water streams above our federal criteria that are safe for aquatic

life. And then, of course, there was metals in the soils and mind waste that are not safe for people to be living on or to be recreating on.

Talk a little bit about some of the cleanup actions that we've already done. We've been working on the site - or I've been working on the site for twenty years now. I think some of us - I think Jane even predates me. So the site has been around awhile. There has been a tremendous amount of work already done. Operable Units 2 and 3 in the site are what we call our residential soils. Operable Unit 2 was residential soils and smelter area around the central part of Joplin. Operable Unit 3 was mind waste that - or residential yards that were located out of the mining areas. We actually completed that cleanup clear back in 2002, and we remediated approximately twenty-six hundred residential properties.

Operable Unit 4 is our groundwater operable unit. As I mentioned, you know, we determined that there was a lot of private wells that were being consumed from that were

contaminated. We ended up running over a hundred miles of public water supply, primarily in the Heritage Acres, Prosperity, Carterville, Duenweg area. And then we had at least four homes that it just wasn't economically feasible to get a public water supply line to, so we installed a deep well for those folks to get them clean water.

Operable Unit 1 is what we're here talking about tonight. That's our cleanup of the mining waste. We began the actual cleanup in 2007, and so far we've cleaned up over eighteen hundred acres, and we've got about six million cubic yards of waste that has been remediated. So we've made pretty good progress. Obviously have a long way to go, but we've got a good start.

During the cleanup that we've been conducting though for the past six years now we've learned a few lessons. We always do - you know, we've made our best engineering judgment when we signed our Record of Decision, and then you get out in the field and you determine that things change. So that's what we're here to talk about tonight,

is what those changes are.

I'll show you just a little bit about some of the work we've done. This is a big ole pit in Carterville. It's an old mining subsidence pit that was pretty much a trash dump. It was a real eyesore for the community. That's what it looked like prior to 2007. This is what it looks like today. I think I took this picture early spring, so the grass hadn't greened up real good yet, but you can tell it's quite different.

These are some big ole chat piles that are kind of west of - southwest of Webb City a little bit. The scale is a little deceiving. I'm standing on top of a huge pile when I took this. About a hundred and fifty feet in the air. The piles you see in front of you are at least a hundred feet tall. So any of you familiar with those piles, I think you will remember how big they were. That's kind of what it looks like now. So we've been doing a lot of work.

We've also been putting up tributaries. This is what's known as Ben's Branch. It was kind of an old miner's ditch.

It starts down around Prosperity, and it runs between Carterville and Webb City, and goes into Center Creek. For years and years and years it's been dumping metals contamination into Center Creek and causing a real problem. You can see the chat piles in the background behind the old dead trees there. You can see the chat actually on the banks in the foreground. So as you can imagine, every time we would get a flood event coming down Ben's Branch, all that material was going straight into Center Creek. This is what it looks like now. Unfortunately, the day I took this we got about a four inch rain, so the water looks a little bit cloudy, but I can tell you that it's clean. That's just silt coming down there. The boulders there are just - this is just upstream from the bridge between Carterville and Webb City, so that's just kind of erosion feature to keep the flood waters from washing the bridge out.

So a lot of native plants are coming back in. You can see the new Willows that are growing, all the grass that's coming in.

So we've cleaned up probably close to four miles of Ben's Branch now. We think we've made a real good improvement so far in Center Creek just by doing that.

I want to go back a little bit and talk about what the actual 2004 ROD said so that you can remember what it is that we said we were going to do. I'll just run through these individual items.

The source of the material, obviously we were going to excavate and remove all the mining waste and the affected contaminated soils. We were going to dig up the sediments in the tributaries. For example, Ben's Branch that we talked about just a second ago. And then we were going to dispose of all of those materials in the subsidence pits. We were going to look for the collapsed mines that were full of water, and projections in that Record of Decision, we would put all the waste into those mine pits. And then once they were completely filled, put a clay cap over them and vegetate them.

In the areas that have been excavated we go in and re-contour those, make sure

there's proper drainage. And then we have some areas we call vegetated chat and transition zones. These are areas where they're not a big pile, it's just a thin layer of chat over the native soil. Maybe a foot or so. Or the native soils that are next to the chat piles. Our original 2004 ROD said we would try to deep-till those and mix it to reduce the metals concentrations and put down biosolids, which is a fancy word for wastewater treatment plant sludges. Basically that adds organic material to the soil, and the phosphate chemicals that we find in these wastewater treatment plant sludges also provide a treatment effect to the metals. So that was our projection in 2004.

For overflowing shafts which drain to the streams we had planned on flooding those. We would also build diversion structures to prevent any surface water from discharging into mine openings.

The Thoms Pit is a rather large pit that's over off of Fir Road on the western side of the site. It was a combination

lead-zinc mine, and also a coal mine. Because of the coal it's got a real low pH problem, it's got an acid problem, metals. So our original 2004 ROD talked about doing some studies there to see if we could neutralize that pit, get the pH up to neutral or basic, so that we could use it for disposal. Those studies have not been done yet. It's still in the plans.

And then the non-engineering type actions we were going to do is to try to implement the institution of control plan that would - number one, would dictate how the repositories are managed for development. And we would also - the 2004 ROD also specified that we would develop a building ordinance through the county. That has been done thanks to the county commissioners. We now have a nice institution control where the people come in and want to build in the mined area there's sampling that's required, and if soils are contaminated above our action levels the county has established for the area - well, the county and the city of Joplin, then remediation is required.

We've also continued to fund the health education program. When we started doing the yard cleanup back in the mid '90s we began funding the Jasper County Health Department to do education throughout the county. We thought that was very important that we educate people on how to protect children from exposure to lead and cadmium during the cleanup. We've also proposed in 2004 that we would develop a monitoring program to assess the improvement in the stream and the sediment quality as cleanup progresses. That is underway. And then we would be developing an operation and maintenance plant that defines how we're going to take care of these repositories in the imaginary future, however long that's going to be.

So that's kind of what the 2004 ROD said we were going to do. Almost all of those things we are doing currently, or have been doing for the last six years. Some of them have been accomplished completely, like the institution and controls program, and the building ordinance, those sorts of things.

The monitoring systems are ongoing.

What I want to talk about tonight is the changes that we're going to be making to that remedy. There's basically five changes. Number one, we would like - we need to let you know what's happened to the volume and the costs on the site. We're going to talk about how we construct the repositories. We're going to talk about the use of biosolids and deep-tilling. Talk about what our new sediment cleanup levels are that we're proposing. And then we're going to talk about what we're doing in what is - in what the city of Joplin refers to as the expedited debris removal area, which is the tornado zone.

First of all, when we were doing the studies clear back in the 1990s most of those studies were done by mining companies with oversight from PRPs. Quite frankly, we did not go out and sample every single pile. We just did a general sampling across the site to determine the amount of information we needed to appoint risk assessments and make some engineering decisions on what needed to

be done. The mining company's estimated that there was about seven million cubic yards of waste on site, covering about, oh, six or seven thousand acres. When we went out to do the actual design for our cleanup our design contractor went out with a backhoe and dug two test pits every acre throughout the entire site. Did very extensive aerial surveys using lidar, where it's airborne. It's an airborne survey that gives you very accurate contours of the ground. Combined that with the test pits, and we were able to determine it was not seven million cubic yards of waste on the site, there was fourteen million cubic yards of waste on the site. So it's double what we projected it was.

The original estimate in the ROD based on that seven million cubic yards was about fifty-nine million dollars. Of course, that was clear back in 2004. We've had a lot of inflation since then, as you well know. The cost has doubled. So we're now projecting that the cleanup cost for the mine wastes themselves is going to be

approximately, and this is a best guess at this point, about a hundred and sixty-eight million dollars. It's, you know, more than a hundred million dollars more than what we had planned on spending. But look at it this way. The cost for cleaning up each cubic yard in the original estimate was eight dollars a cubic yard. We're now at about twelve dollars a cubic yard, even given six years' or seven years' worth of inflation. Well, nine years' worth of inflation. That's not too bad. So we think we're still very cost effective even though the cost has gone up so high.

Now I want to focus on what we're doing with the repositories. As I said when I described what the 2004 ROD said, we envisioned that we would put all the wastes in the mine subsidence pits. When we had gone out and done the designs in the area what we found out was there's not enough pit space available to hold that fourteen million cubic yards. We do have some very large pits that we are filling, like the old one under the circle and the big pit at King Jack Park,

but we still do not have enough repository space or enough mine pit space to take all of the waste. So we're really put in a position now where we have to design above ground repositories. We would like to put it all below ground, but it just isn't going to fit. So we're trying to design repositories to take municipal land use into account. For example, there's an old abandoned wastewater treatment plant in between Carterville and Webb City where Carterville used to send the material to or all their waste to. It was abandoned. They were under order to close it. We have actually gone in and took that over. We completely filled it up and added about thirty feet in height to it, and now we have about a forty acre great big flat field that Webb City is going use for a sports complex. So even though we're building above ground repositories, we're trying to keep those kind of ideas in mind. We've built a number of new roadways through Webb City. Where we needed to build a repository the City was interested in a road, so we brought the waste in and basically made a long

straight repository that they later came in and put gravel and asphalt on, and now the city has got a new road and we've got a waste encapsulating. So those are the kind of things that we're trying to come up with when we're building these above ground repositories.

The other thing we want to let you know is that we have a repository out off of 17th Street. Webb City calls it 17th Street, in Prosperity it's called Elm. It's just immediately east of Highway 249. And that was our repository where we placed all the waste from the residential yard cleanup. That repository has remained open for developers and builders to use. If they're going in and building a new home in a contaminated area they've got a place to take their contaminated soil to. We have opened a new repository. Now it's out on the state line, north of 7th Street on Malang, about a quarter of a mile on the Farmers Chemical gypsum pile. That's an old waste pile that needed to be closed anyway. So we're going to put mine waste and contaminated soil on

it, and then eventually when it's full we'll cap that pile. In the meantime it can be used for developers and builders to dispose of their contaminated soils for building new residential structures.

The city is using it right now for most of - well, for all of the soil they're removing in the tornado zone, they're remediating houses, and the county coordinates with other developers that want to dispose of soil as well.

Talk a little bit about the use of biosolids. As I said, in the 2004 ROD we specified that in these thin chat areas we were going to go in and get big discs and try to till up the soil and add some biosolids to it to reduce the toxicity of the metals. We thought that would save us a lot of money over excavating and disposing of the material. Once we started the cleanup we had a contractor go out and get a big three foot diameter multi-disc implement that the use up in northern Missouri plowing under sand when the rivers flood. And we worked and worked and worked and worked, and we could not get

the concentrations down low enough to meet our action levels. It's just the deep-tilling just didn't work.

The other problem we had with biosolids is the only thing that's really available in this part of the state are what are known as Class B sludges. Those are sludges that are not composted. They basically come right out of the lagoon or right out of the treatment plant, and they're semi-dried, but they're not - they've not been treated, and the odor is horrendous. So if we tried to use those in the areas that we're cleaning up near residences I don't think my phone would ever stop ringing.

We just don't have the material available that we need, or at least suitable material that we can use, and so tonight we're proposing that we - that the EPA is actually going to eliminate the use of biosolids and eliminate the deep-tilling for the site.

Focus now a little bit on our sediment cleanup numbers. When we signed the ROD in 2004 our ecological risk assessors

went to the literature and determined by looking at old toxicity studies that had been formed across the country, or for a fact, throughout the world, looking at what types of concentrations would cause toxicity to aquatic organisms. We developed the sediment cleanup numbers for our site, and they were two parts per million cadmium, seventy parts per million lead, and two hundred and fifty parts per million zinc.

Once we got working down at the site we got - we formed a partnership with the U.S. Geological Survey, their biological services division in Columbia, Missouri. They've got some highly skilled contractors that help them. And we did a very extensive toxicity study throughout not Jasper County, but the whole tri-state area. We took samples from about two hundred and sixty locations throughout Jasper County, Cherokee County, Newton County, and down into Ottawa County, Oklahoma. We collected numerous five gallon buckets full of sediment throughout the entire district, sent those to the laboratory in Columbia, and did very

extensive, very long-term toxicity studies on actual organisms used in sediments on the site. And the result of all of that is that we've now developed new cleanup criteria for the site. They're not quite as stringent, is what the literature might indicate, because of the different chemistries and components of the sediments on the site. So we're now proposing adopting these, and that is seventeen parts per million cadmium as opposed to two, two hundred and nineteen parts per million lead instead of seventy, and two thousand nine hundred and forty-nine parts per million zinc instead of two hundred and fifty. So the expense that we went to to do all these studies has been a little bit beneficial to us that we were actually able to increase the cleanup levels, which doesn't happen very often.

The last issue I want to talk about is the debris removal area. All of you that live in Joplin know the devastation that happened on May 22, 2011. I think the estimates that I get from the city is there was over seven thousand residences that were

destroyed, and probably another three thousand businesses. I was here, I know, seven days after that tornado, and I didn't recognize the place, and I had been working here for twenty years. So I know what you all went through. The problem with it is a lot of that area had been tested when we did the yard cleanup, and unbeknownst to us, a lot of the area was underlined by mining waste that was contaminated, but as people developed back in the '20s and '30s, even more recently, they have brought in topsoil to establish residential yards, so the testing we did in that area indicated that it was all clean, they met our action levels. And just because of the devastation of the tornado, the debris blowing around, the removal of the debris, unfortunately - and rebuilding activities by putting in new foundations and things, some of those - quite a number of those yards are - now have lead cadmium levels above our action levels. So they need to be remediated.

We have - we consider the easiest way to do that is to provide money directly to

the city of Joplin. So we are proposing at this point that that's what we continue doing, is EPA provides funding to Joplin. They've hired staff, and they have a very efficient program going on, and getting a really good cost from the contractors, and doing a wonderful job, quite frankly, of cleaning up these properties as people come in and rebuild on these lots. So EPA is proposing that we continue to do that. We don't know the exact costs because all of the lots haven't been sampled yet, but the projection that we're getting from the health department is probably somewhere in the neighborhood of about twenty million dollars when it's all said and done. If you add that to the hundred and sixty-eight million that I just told you about on the mine waste, we're now looking at a hundred and eighty-eight million dollar project as opposed to our sixty million dollar project. So, unfortunately, things have really gotten expensive.

Just so in case you don't know, most of you probably do, that's an outline of the

EDR. It extends from the Wildwood Ranch area out at Central City Road and 32nd Street, all the way on the east side of the city of Duquesne. Obviously the tornado went further than that. My understanding is it went all the way down into Diamond. But the destruction area that we're dealing with is over to the city of Duquesne, and from roughly 32nd Street on the south up to about 15th on the north, and obviously that varies. You can see the red outline there on the map.

So that's the changes that we're proposing. Just like when we signed the original Record of Decision, we have a set of nine criteria that we assess all of our proposed actions against. We're required to do that with any changes that we make, too. So I'm just going to spend a few minutes here and run through each one of these nine criteria and tell you whether or not any of them have changed.

The first two, and most important, and we're not allowed to select a remedy that doesn't meet these two criteria, these first

two, is the overall protection of human health and environment, and compliance with ARARs. And that's an acronym that stands for Appropriate Relative -

BY MS. KLOECKNER: Applicable.

BY MR. DOOLAN: Applicable. I got tongue-tied. Requirements. Basically it's all the laws that govern hazardous waste. And I can tell you that all of these changes that we're proposing don't change the effect on human health at all, and all of the changes still comply with all of the ARARs.

The other thing - the other two that we look at are short-term and long-term effectiveness. And there really are no adverse effects with any of these changes to either of the long-term or the effectiveness - or the short-term effectiveness and remedies that we're proposing.

We also look at the - are required to look at the reduction in toxicity, mobility, or volume through treatment. When we did the 2004 ROD the actual addition of biosolids was considered a treatment. We're sort of eliminating that now. So, in fact, we're

being more protective by not doing a treatment, but actually doing removal of the material. So we obviously are still complying with this requirement.

Implementability is just what it sounds like. Whether or not it's possible to even implement the remedy. And all of these changes are certainly easy to do.

Cost effectiveness I touched on a little bit. The costs have gone up significantly, as I've reported to you, but if you look at the cost per cubic yard, given the last nine years of inflation, I still think we're doing pretty good. We're at about $12.00 a cubic yard as opposed to $9.00 or $8.00 a cubic yard, but when we signed the 2004 Record of Decision diesel fuel was about ninety cents a gallon, and it's about four bucks a gallon right now. So I think we've actually improved our cleanup ability. I think the costs are still - well, they're certainly still cost effective for what we're doing even though the costs have gone up.

The last two that we look at is state acceptance and community acceptance. State,

Missouri Department of Natural Resources has reviewed all of these proposals. There's no one here from the DNR tonight, but I got their assurance on the phone that they've concurred, and actually signed off on our proposal. So MDNR is in agreement with what we're proposing tonight. And then, of course, community acceptance is you. That's why we're here tonight. We want your comments. We want your questions. We will accept those through the public comment period, and then we will assess all of the comments that we receive, and make a determination on whether or not the public is buying into the proposal, and we'll make a final decision. Assuming that the public does agree, we'll issue a final ROD amendment probably sometime towards the end of September.

So as I just said, the public comment part of - comment period, excuse me, started back on August 7th, and it's going to extend through the 6th of September. You can - we have what's called an administrative record, which is basically the document that we

brought a few copies tonight if you want a copy of it. I guess some of you I see have picked it up. The other thing that is in the administrative record is the toxicity studies that we've performed that helped us to establish what the new cleanup - sediment cleanup levels out to be. Feel free to go look at those. All combined it's eight hundred pages. It will put you to sleep in a heartbeat, but you're welcome to go review it if you would like. And then the results of our deep-tilling study is also in the administrative record, and those are found at the Joplin Public Library and the Webb City Public Library. And if you want to make a trip to Kansas City, you can come to our offices in Lenexa, Kansas and review it there also. When you - if you want to go to the Joplin Library it is in the Reference - it will be in the Reference section. And it's a CD. You have to ask for the EPA administrative record, and they will give you a little CD, and you can plop it into a computer and read it. We do not put out a hard copy.

BY DEBBIE KRING: The EPA provided a laptop.

BY MR. DOOLAN: Yes. There is a laptop provided by EPA at the library that you can stick the disc into, so there's no charge to review it.

And, finally, if you have comments, who you send them to is Debbie Kring. There is her email address or her phone number if you would like to call them in. And that's all I have tonight, so we'll turn it over for questions.

BY DR. DRAKE: We handed out some blue cards for anyone who really doesn't want to ask a question in public. That's okay. You can just write that down on a card and just leave it with Debbie Kring on the table. And, also, during the whole length of the comment period, you know, you can call Debbie on the phone, and you can email her. You can contact her any way you want with any questions, comments you might have about anything Mark has spoken about tonight. But I guess the intent now is to have some, you know, actual question and answers. So if

anyone has any questions, now is a great time to do it. I see someone right here in the front row. Great. If you wouldn't mind just to state your name for the court reporter here.

BY CYNTHIA YOUNG: Cynthia Young.

BY DR. DRAKE: Cynthia Young. Okay. Ms. Young, yes.

BY CYNTHIA YOUNG: My question has to do with these repositories that you're going to build. I mean, considering the sizes of the pits that have been filled, and that's only held half the waste, so whatever you build is going to be huge. So what are you guys thinking these are going to be?

BY MR. DOOLAN: Well, there's still a tremendous amount of space available in the Oronogo Circle. We've put over a million and a half cubic yards, and the mining companies are doing the work right now filling them in. Million and a half cubic yards in Oronogo Circle and you can't even tell it. So there's a tremendous amount of space there. We still have a lot of space left at the old King Jack Park pit. And then there's just

shafts. We uncover them all the time. We go in and clear up an area that we're going to work in, and we'll find half a dozen shafts. Some of them are three hundred feet deep, and they'll take literally tens of thousands of cubic yards of mining waste down in the shaft. So we're still trying to put as much as we can underground, and there's still a lot of pit space available, which is not enough pit space to put all. So I can't tell you how long it - how big a repository is going to be, but we're scattering them throughout the site. Like, we're going to put a tremendous amount of material out there at the gypsum pile. Nobody ever uses that pile anyway. If we add another twenty feet to the top of it you would never even know it.

BY CYNTHIA YOUNG: Well, my concern is, since we don't know what size it's going to be, that won't come back to us, is my understanding? Once you guys get beyond this, we just sign off, and whatever size it is it's whatever it is?

BY MR. DOOLAN: Well, I understand

what you're saying. Yeah. It is what it is, but we're trying to design every repository in - with anticipated future use in mind. We don't want to just build a mountain out there. In fact, we've made some of the repositories a lot larger in size area wise so that they're not real tall, so that they can be developed. You know, there's no reason it couldn't be used for all kinds of commercial development. We don't allow residential construction on the repositories. No houses, duplexes, apartment complexes. We don't want kids living there. But they can certainly be used for commercial or recreational-type areas. So we're keeping that in mind when we're building them. We're not just building big mountains.

BY CYNTHIA YOUNG: Okay. So it's not going to look like a prison out in the middle of somewhere filled --

BY MR. DOOLAN: No.

BY CYNTHIA YOUNG: -- with dirt?

BY MR. DOOLAN: Absolutely not.

BY CYNTHIA YOUNG: I mean, that's what I'm envisioning.

BY DR. DRAKE: Right. Just briefly to follow up on Mark's answers to part of your first question, if there was a change that we thought was a material change, like - like say, for instance, the volume doubled yet again. We're very confident that won't happen, but if we were to have just a significant material change, there would certainly be another opportunity through some other type of public notification. You know, we're not anticipating that, but just real quickly to follow up. I saw - yes. Person in the green. Yes.

BY ERIC FERRELL: Eric Ferrell.

BY DR. DRAKE: Eric Ferrell.

BY ERIC FERRELL: Mark, you mentioned that the discing process didn't work, and so the new plan is to do away with that idea, but I didn't understand what might take the place of that.

BY MR. DOOLAN: Excavate and remove it.

BY ERIC FERRELL: Okay.

BY MR. DOOLAN: We're just going to dig it up and get rid of it. We thought we

could save money by basically just doing mixing. You know, we thought that if there was just contamination at the surface we could disc it under with some cleaning material and leave it in place. It just didn't work, so it's got to be excavated and hauled off.

BY ERIC FERRELL: Thank you.

BY DR. DRAKE: Lady in the white blouse.

BY SHANEN GIVONE: My name is Shanen Givone. So under the proposed changes do I understand this to mean that whereas we did have two part per million cadmium, seventy part per million lead, and two thousand nine hundred and forty-nine parts per million of zinc, you now want to increase those levels to be seventeen, two hundred and nineteen, and two thousand nine hundred and forty-nine?

BY MR. DOOLAN: That's correct.

BY SHANEN GIVONE: So if cadmium, I believe, is supposed to start causing cancer at like five, and lead, I believe, was at eighty, where we start getting a lot of health problems, you're suggesting that we

allow us to be exposed to even more - or higher levels of those toxins?

BY MR. DOOLAN: Those numbers that you're quoting are from - you're looking at aquatic studies, coming from a variety of different studies that are done throughout the country, and some of them are done on coldwater species, like trout, who are extremely sensitive. We don't have those kind of species here. We actually collected the material from Jasper County, and Cherokee County, Ottawa County, Newton County, as I said, took them back to the laboratory, put them in aquariums, and exposed all kinds of - I think it was five or six different aquatic organisms. Some sensitive, some not so sensitive. Looked at growth, looked at - like in the fishes, looked for lesions and things like that. And when you do those toxicity studies you expose them to different concentrations, starting at very low concentrations up to high concentrations, and you look for those cutoffs where the scientists and the toxicologists could actually measure either a growth response, a

reproduction response, or some sort of tissue response in the actual organisms in the laboratory. And the toxicologists were the ones who came up with those numbers based on sediments that we actually have at the site.

BY SHANEN GIVONE: Is it not correct that different organisms or different animals react differently? For example, the fish may not be affected, the ones that you tested, but is it possible that it will affect humans, or deer, or raccoons, or birds, and other organisms that would be exposed to those contaminants?

BY MR. DOOLAN: We did risk assessments. Actually, Roy Harris is here from the State Health Department. The State Health Department, in conjunction with the County Health Department, conducted the risk assessments, and the numbers that we came up with for people that are swimming or recreating these streams are significantly higher than what these values are that we're proposing. So, in other words, if you go out and play in the streams, and are swimming in the streams, the values are much higher.

Aquatic organisms are much, much more sensitive to the sediments and the surface water and the sediments than people are.

BY MS. KLOECKNER: Can you go over the action levels for the terrestrial soils, because those are different from the sediment numbers that this lady was asking about?

BY MR. DOOLAN: Yeah. The cleanup number for the terrestrials - now, this is just for sediments. The cleanup number for terrestrial is four hundred parts per million lead, seventy - forty parts per million cadmium, and sixty-four hundred parts per million zinc. That was Jane Kloeckner.

BY MS. KLOECKNER: Oh, I'm sorry.

BY DR. DRAKE: Okay. We'll come back to you, but gentleman in the blue. Blue shirt.

BY ROY SIDENSTRICKER: Roy Sidenstricker. Sidenstricker. I've just got a question about what's your estimation of moving out in the Purcell, Alba, Neck City area. Estimated guess.

BY MR. DOOLAN: Don't know. I wish I did.

BY ROY SIDENSTRICKER: I mean, it seems like we're last on the totem pole, so -

BY MR. DOOLAN: Not necessarily.

BY ROY SIDENSTRICKER: I mean, we've got lives to live, too, you know.

BY MR. DOOLAN: Certainly do. We're trying to focus - the actual majority of the waste - the reason the site is called the Oronogo-Duenweg Mining Belt Site is that whole strip from Oronogo down to Duenweg. We've got a big chunk of that cleaned up. My intention is, once we've got the rest of that finished - we like to stay in one area and concentrate, that we'll probably move up in the Neck/Alba area. We do have a separate contract going down in the Wildwood area. Wildwood Ranch area. Which is down off 32nd Street. Because that is the only area of mining waste in Jasper County that drains to Shoal Creek, and there's a pretty significant amount of that material going down the valley there into Shoal Creek, so we're trying to remediate that, then we'll probably be up in that area.

BY ROY SIDENSTRICKER: We drain into Spring River, North Fork, Buck Branch. There's several, several - they drain down into Oklahoma.

BY MR. DOOLAN: Right. Couple of years, is the best I can tell you.

BY ROY SIDENSTRICKER: Okay. That's - I mean, I ain't going to hold you to it.

BY MR. DOOLAN: Thank you.

BY ROY SIDENSTRICKER: Plus or minus.

BY DR. DRAKE: Okay. We'll go back. I'll do the guy in the red, and then we'll go back to you. I have to do you in order of your hands, so we'll be fair and democratic here. So, yes. Gentleman in the back.

BY JAMES RICHARDS: James Richards.

BY DR. DRAKE: Okay.

BY JAMES RICHARDS: Similar question. What about the Snowball area? It's closer in the Joplin city there.

BY MR. DOOLAN: Don't have an exact date. I know that --

BY JAMES RICHARDS: It is part of the plan though?

BY MR. DOOLAN: Oh, it's absolutely

part of the plan. The Snowball area is a little strange because part of it is going to be done by the mining companies, the other part is going to be done by EPA. I'm also very aware that the city is planning a new ramp and a new street up through there as part of that Zora bypass. I believe that the majority of that roadway is going to go on the mining company's side, and I'm kind of pushing them to - when they get finished in the Oronogo area to go down and take care of that. So hopefully within a year or so.

BY JAMES RICHARDS: Yeah. My understanding is the road is going to go to Bell Center curve there.

BY MR. DOOLAN: Correct.

BY JAMES RICHARDS: Cattycorner to Lone Elm and Zora connection. So it will go right through that main part of Snowball.

BY MR. DOOLAN: That's correct.

BY JAMES RICHARDS: Okay. But no timeframe really? Just kind of -

BY MR. DOOLAN: Year and a half, two years. It kind of depends on when the county - or when the city needs to get in there and

build that road.

BY JAMES RICHARDS: Yeah. I guess they don't have the money to do it right now.

BY MR. DOOLAN: No.

BY DR. DRAKE: Okay. Let's go back. If you - she probably won't remember your name, so just have to ask you one more time.

BY SHANEN GIVONE: Shanen Givone.

BY DR. DRAKE: Okay. Thank you.

BY SHANEN GIVONE: While looking online and researching the population from 2000 to 2010 according to each zip code, it appears that our population in every city that I looked at from Purcell, Webb City, Joplin, Carl Junction, the area, every one of those cities has declined by about fifty percent. We've lost that much of a population. These are not my numbers. I'm just saying what I found online. And I'm concerned because the male/female ratios are also skewed in those same reports, which is very similar to what happened in Seveso, Italy, and I think it was Michigan, that both had exposure to like Agent Orange. And since it was made in Verona, Agent Orange, and

other chemicals, of course, and it was released, and it was still released and found in the 2012 EPA's fourth five year review, because of those similarities, and because it seems as though we have so many birth defects, which are about three times higher than the national average, and because we have children who are two to five times higher than the national average that are in special ed IEP classes, and our number one risk for our health around here would be coronary, along with the breathing and sepsis, or whatever it is, the number ten that had to do - had to do with the kidneys releasing the waste along with your protein. I can't remember the name for it. It's on my laptop. I would have to look it up. But all these things, we seem to be a very unhealthy community. And the water tests that I have on the laptop also show very high levels of not just Agent Orange, which we would call pesticides, or herbicides, or defoliants, and things of that nature, but they were made during the war in a more concentrated form. And we're finding those in our water today,

along with the cadmium, and lead, and zinc, and radiation levels that I understand from speaking to some of the people from the MDNR, and the EPA, and the health department, that it is just natural organic radiation, but I do not find that to be true from what - or I do not find that to be all that it is from the reports that I'm looking at. And so I'm concerned, especially when we talk about increasing the health levels - or the heavy metal levels for all of us to be exposed to when it seems that we're already much weaker than we were.

BY MR. DOOLAN: Well, first of all, I'll try to explain. We're only dealing with a mining problem here, the cadmium, lead, and zinc. So the issues that you're discussing, dioxin related, which have nothing to do --

BY SHANEN GIVONE: Some of them.

BY MR. DOOLAN: -- with this site, and I can't address those because --

BY SHANEN GIVONE: What about the radiation that does come from smelting and --

BY MR. DOOLAN: I'm not aware of any

radiation coming from the smelting. We have not found any radioactive materials down here that I'm aware of that are related to the mining.

BY SHANEN GIVONE: According to Mr. Gunn, when Eagle-Picher emits their heavy metals, it is partially radioactive. And he calls that organic because it came from the ground. And I argue that it is no longer organic when you pull it out of the ground and make it so small that we are breathing it in.

BY MR. DOOLAN: I'm not familiar with that issue, so we're going to have to get back with you on that.

BY SHANEN GIVONE: And as far as the TCDD, or other type of dioxins, we have that coming up --

BY MR. DOOLAN: It's not part of this site, and I have nothing to do with that. You're going to have to talk to the health departments about it, because I don't have any --

BY SHANEN GIVONE: Is there any --

BY MR. DOOLAN: -- information

whatsoever at all about that. I'm not here to talk about that tonight. It's not that I'm trying to avoid your question, it's just not - I don't have any information about the dioxin to answer your question.

BY SHANEN GIVONE: Well, it also comes off of EBV. Are you responsible for that part or not, since it's located in the chats?

BY MR. DOOLAN: What?

BY SHANEN GIVONE: EBV. It used to be - it burns all of the materials and stuff like that for -

BY MR. DOOLAN: I have no information about that. I understand, Shanen, that you have a lot of concerns about the issues down here, but --

BY SHANEN GIVONE: I really do. Yeah.

BY MR. DOOLAN: We're addressing those through personal contact --

BY SHANEN GIVONE: But, I mean, you can just see that I'm concerned about increasing any of those numbers --

BY MR. DOOLAN: Well, the numbers

that --

BY SHANEN GIVONE: -- or allowances.

BY MR. DOOLAN: I will speak specifically about the sediment numbers, and I'm glad to tell you those are still significantly lower, order of magnitude lower than what is acceptable for humans to be exposed to, because the aquatic organisms in the streams are much more sensitive to the metals in the streams than people are. And I think we have some health officials here that could back me up on that. So they're still significantly lower than what people would be concerned about. And we have site specific data to indicate that the toxicity is still safe for those organisms living in the stream.

BY SHANEN GIVONE: Well, since the MCLs for lead for children is now five instead of ten, and you said back in I think 2009 that seventeen percent or something of the children were found to have at least ten micrograms per deciliter of exposure - or lead poisoning, then that means there were actually probably fifty percent of the

children that were at a toxic level if they used today's five micrograms per deciliter instead of the ten? Is that possibly the reason for all of the people that are no longer with us from 2000 to 2010?

BY MR. DOOLAN: Do you want that one, Tony?

BY TONY MOORE: Well, you know, the current CDC guidance is that you should start to be concerned if children have blood lead levels greater than five. That's not necessarily - I mean, I don't think they would necessarily consider that toxic at blood lead level of five, however, it is a level of concern, and you would hope that they would not exceed that level or stay below it. There are studies out there that would indicate that virtually no lead exposure is - zero lead exposure would be optimal, but that's not possible. There's - if you look up lead in the dictionary it's going to say lead is ubiquitous in the environment because it's everywhere. It's been used for so many things, and it's kind of everywhere in the environment. So I don't

-

BY SHANEN GIVONE: Well, we can't lower the lead to what it used to be ever since we had the leaded gasoline. I mean, I understand that that is probably never going to be below two anywhere in America, and probably most countries, but it just seems that if they've already correlated health issues for adults or children even at the levels of two or three, like with the World Health Organization study and stuff, that we would not want to introduce it even in the water sediments or anything like that. Because we have flooding, then we have dry spells, then it becomes dust, and then it's still blowing. I'm just concerned about --

BY MR. DOOLAN: Keep in mind that what we're proposing for the sediment number is two hundred and fifty. Our acceptable level for residential yard soil is four hundred. So it's not quite, but almost half that value. And it's coming from sediments that are saturated in the bottom of a stream. So if a child is exposed to those sediments, it's going to wash off his hand before he can

get out of the stream anyway. So these numbers are, in my opinion, extremely protective of people still.

BY DR. DRAKE: Okay. Let's - yes. Lady right here in the front, if you wouldn't mind to state your name for the court reporter.

BY SUSAN HARDEE: Susan Hardee. I have a few questions. One, is Oronogo Circle actually ever going to get full? Filled?

BY MR. DOOLAN: We think so.

BY SUSAN HARDEE: Really? And capped?

BY MR. DOOLAN: We think so. That's the plan.

BY SUSAN HARDEE: Okay. Then on the property north of that, it's about twenty-six acres, and it was full of a lot of mineshafts, and I think EPA is speaking now of making it a wetland. I knew I had a spring over there, and also Orchard Creek, which comes from north, and I'm not positive what they're doing. I'm supposed to get a final plan. But all this water - kind of what I would like to know - they found five

springs when they started on the twenty-six acres, not one. And the small creek. And Oronogo Circle, the water in Oronogo Circle goes to Joplin, and Carthage. We know it goes everywhere. Anyone in the area knows. And if you're putting contaminated material in the Circle, isn't that going to leach out into our aquifers in some way?

BY MR. DOOLAN: We actually did very extensive studies before we did our 2004 Record of Decision where we took material much more contaminated than what we're putting in it now. In other words, we went up into the Waco area and found some mine tailings that had extremely high levels of lead, extremely high levels of zinc. Lead is actually not that soluble. It doesn't dissolve under the groundwater that well. Zinc does though. We've had some tailings that had as high as forty thousand parts per million of zinc in it, which is extremely high, filled up a fairly large pit up there, had monitoring wells placed all the way around the pit to monitor the groundwater. What we saw was a pretty significant spike

for a short period of time, and then fell off, and the concentrations actually went lower than what was in the pit before we filled it. So what happens, it's a chemical reaction that if you put the materials in there they go down real deep, which means they're not exposed to oxygen anymore, and it takes away their solubility, they become more solid, and they don't dissolve. So it's actually better to have the materials underwater than exposed at the surface.

BY SUSAN HARDEE: Are they not going to sink kind of to the bottom, the lead and everything, and --

BY MR. DOOLAN: No.

BY SUSAN HARDEE: -- then the top water couldn't clear off? After all this is finished can I have all my water tested?

BY MR. DOOLAN: Absolutely.

BY SUSAN HARDEE: Really? All the ponds and - okay.

BY MS. KLOECKNER: Institutional control. Surface water monitoring is institutional.

BY MR. DOOLAN: Yes.

BY DR. DRAKE: Okay. Yes. We'll go back to you.

BY SHANEN GIVONE: Shanen Givone again. And this has to do with the cleanup. Mr. Gunn from the EPA told me that - when I asked about Snowball, and Oronogo, and Alba, and all the different chats that are still visible, and people are still able to go in and be exposed to it and take it out and throw the contamination around in a driveway or whatever, I asked why it was still possible that kids were riding in Snowball, and access was open, and we were still exposed like on windy days. And he told me that we were only given fifteen million dollars per year for all of Region 7, as far as a budget for cleaning up the mining district. Is that correct to your knowledge? And, if so, why is it that all of those corporations like Asarco and Doe Run, and Eagle-Picher, and all - I mean, there's like twenty of them or so. Why is it that when they were fined we did not just get it all done right away, instead of seemingly just doing a little bit here and a little bit

there, and even in the highest concentrated areas, like in Alba where you saw the picture that was outlined, that means it's the most toxic, and the one in Oronogo, most toxic, and the part in Joplin by the smelter, most toxic, why weren't those concentrated on first and then work outwardly?

BY MR. DOOLAN: We are working on the areas that we think are the most - where there's most people exposed. That's why we started in the Carterville, Webb City area, because that's where the highest population was, the people abutted right up against those. That's why we're working in the Oronogo area right now. We can't do all eleven thousand acres all at once.

BY SHANEN GIVONE: But are you doing it or are the companies that caused it doing it?

BY MR. DOOLAN: Both. EPA is working on the site, spending what we call fund lead money, tax dollars.

BY SHANEN GIVONE: Right.

BY MR. DOOLAN: Appropriations from Congress. And we have Blue Tee, Goldfields,

--

BY SHANEN GIVONE: Right.

BY MR. DOOLAN: -- Doe Run, also working on the site.

BY SHANEN GIVONE: And there could not be a particular one that would start on the ones out in Alba, and another particular one that would start --

BY MR. DOOLAN: The mining companies - the mining companies are working on the areas that they operated on. They're only responsible for a certain part of the site, not the entire site. We do not have a party responsible for the Neck/Alba area.

BY MS. KLOECKNER: I'll try to answer the question about the responsible parties. We have five responsible parties actually that had some viability left when we started to work on our legal settlements with this Operable Unit Number One. All this mine waste cleanup. And those five parties covered maybe - and this might be a little high. Fifty percent of the acreage. So we entered into what we call a mixed work settlement, where those parts where they

formerly operated and owned mines, they are doing the work. And then we have orphaned. Maybe fifty percent or more of the acreage that has to be cleaned up is orphaned. We can't tie those areas to any particular viable responsible party, so we are using Superfund monies for those portions. And it's kind of checkerboarded where we find a party that's responsible and where we have to use Superfund trust monies, the money that we get annually from headquarters.

BY SHANEN GIVONE: Why are we limited to the fifteen million per year then?

BY MS. KLOECKNER: Well, that has to do with funding from Congress, funding from headquarters, and how that's divvied up across the whole United States. So in order to approach this systemically for the whole United States, the money is divvied up on a formula from headquarters, and we get so much. You could add more, I'm sure.

BY DR. DRAKE: Right. There's always a - and that was Jane Kloeckner, the regional counsel, answering that last question. But, as you might imagine, there are ten regional

offices at the Environmental Protection Agency, all vying for remedial action funding to do any manner of cleanups in all fifty states. So it's a big competition, so to speak, for funding. We have been very fortunate here. We have received actually quite a bit of federal funding. We receive a large amount of the annual Superfund budget, and we just have to procure all we can. I mean, it's - it's certainly our goal to procure as much money as we can, to do as many cleanups as possible. But, I mean, the amount of taxpayer money is finite. The amount of responsible party funding is finite. They're liability is finite. So it's just that combination of all of the circumstances. But we are certainly, - you know, a perfect world, yes, we would want as much funding as possible. The EPA is only one federal agency among many, many federal agencies that make up the United States Federal Government. So, you know, it is a competition. Keep that in mind. And the resources are limited. So, let's see. Let's go on to some more questions. Yes. In the

Kansas City Royals shirt in the back. Yes. If you wouldn't mind, just give your name for the reporter real quick.

BY BOB FOOS: Bob Foos. Are you monitoring the Circle pit area, Blue Tee? It seems like they've come to a halt.

BY MR. DOOLAN: Well, Blue Tee is conducting that action over there. They have a contractor that's doing that work, and the contractor doesn't like to work in the rain. We've had a whole lot of that this summer. So EPA crews are working, but Blue Tee crews are not working. I cannot explain why. They're just about finished though. I can tell you that. With the work that they're going to do up in Oronogo right at the moment.

BY BOB FOOS: Have they started capping yet?

BY MR. DOOLAN: The pit?

BY BOB FOOS: No. The surrounding areas.

BY MR. DOOLAN: There is very little capping to be done because everything was excavated. The only place that they're going

to be building a cap is right up against the roads, because the roads in Oronogo are all built in chat, so you start in the chat piles, then work your way towards the streets, you leave an embankment along the road where the chat is exposed, so you have to cap the edges of those, but other than that it's --

BY BOB FOOS: Maybe I'm using the wrong term. I mean covering with topsoil and -

BY MR. DOOLAN: There will be no topsoil put on there.

BY BOB FOOS: Okay.

BY MR. DOOLAN: All they're doing is going in and digging down until they get the clean material, then they're grading the area to make it drain. It's really unfortunate that we don't have enough funding or available topsoil anywhere in Jasper County to cover all the areas that we excavate. I would like to, but I crunched the numbers at one time just to see if we put four inches of topsoil on the areas we clean up so we can get grass growing, and just EPA's side would

add another sixty million dollars at a minimum. So we don't have the money to do it.

BY DR. DRAKE: Okay. Thank you. More questions? Yeah. I'll get to the guy behind you first, then we'll go back to you. The person in the blue shirt. And if you would repeat --

BY ROY SIDENSTRICKER: Roy Sidenstricker. When you move out to the Purcell, Alba, Neck City area are you going to come talk to the landowners before you move out there and explain what you're going to do?

BY MR. DOOLAN: Absolutely.

BY ROY SIDENSTRICKER: Approximately how long before you actually do the work are you going to talk to us? What we did, we took fourteen acres that's the ole Frojeau (ph.) mine just north of Purcell, where the old sludge pond used to be. It's got tailings, it's got slate, it's got pillars, concrete pillars and stuff. Well, we developed that and put a 6.3 acre lake in there where the sludge pond used to be.

We're getting a lot of runoff from the chat. And we've built houses all around this lake. And we kind of want to know what you're going to do with that sludge pond. Are you going to fill it in or help us make a lake out of it?

BY MR. DOOLAN: I would have to wait until we do the design.

BY ROY SIDENSTRICKER: Well, I just want to know about --

BY MR. DOOLAN: We do them in phases. So, you know, we'll design out, we'll do the remedial design on four or five hundred acres, and we'll go construct it. We'll do an additional design, then go construct it. So I have no idea --

BY ROY SIDENSTRICKER: Are you familiar with the area though? Have you been out there?

BY MR. DOOLAN: Not in a long time.

BY ROY SIDENSTRICKER: But, anyway, I wanted to know about how long before you come talk to us.

BY MR. DOOLAN: Oh, it will be a few months in advance before we start the

cleanup.

BY ROY SIDENSTRICKER: I was interested. So thank you.

BY DR. DRAKE: Okay. I believe you had your hand up here in front. One more time, your name.

BY SUSAN HARDEE: Oh. Susan Hardee.

BY DR. DRAKE: Okay. Thank you.

BY SUSAN HARDEE: And Blue Tee can't do anything. Just go over and talk to Bill. Everything over there right now is clay, and if you even try to walk in it you can sink right to here and stay there. So it's the weather. But I also had a comment. I talked to Jerry Riff about it, because I'm understanding maybe a problem about getting borrow, which I have given some, but they were going to get it from someone else. And behind, not the twenty-six acres, but across where we live, there was Mill Pond. If anybody is familiar with Oronogo would be. And that was capped and taken away. There are two streams that come from our fire station this way and by a house over here that used to go into Mill Pond. They still

go into that area. And there's nothing stopping them. They're just going to keep flowing, and I guess keep going to Center Creek, or down in a big hole that somebody has got to fill. Orchard Creek Mine comes from way out north also. But what I suggested to Jerry is maybe if anybody needed borrow, and to get rid of some more water, that Mill Pond could be put back there. It's just - I just live - my property abuts it on this side of MM Highway. And I hated to see it go just for wildlife. And I'm really - I'm actually getting happy if I'm getting wetlands on the twenty-six acres because we have every wildlife you can imagine. Even a rest stop for birds flying. That would make me very happy. But Mill Pond, maybe someone should just look into putting it back.

BY MR. DOOLAN: I'll let them know about that.

BY SUSAN HARDEE: Okay.

BY MR. DOOLAN: See if there's an interest in it.

BY SUSAN HARDEE: Okay.

BY DR. DRAKE: Okay. Yes. In the

white blouse. And I can't recall your name, but --

BY SHANEN GIVONE: Shanen Givone.

BY DR. DRAKE: Okay. Thank you.

BY SHANEN GIVONE: When you were talking about the proposed changes and amendments you said that the county sets the action levels?

BY MR. DOOLAN: The county has an ordinance that governs construction of new residential property, and they actually established a cleanup level for cadmium and lead in their ordinance.

BY TONY MOORE: Based upon EPA --

BY MR. DOOLAN: Based upon what EPA's recommendations were.

BY SHANEN GIVONE: And will any of those require a TI because they are above what the EPA might normally consider as being a safe level?

BY MR. DOOLAN: They are what EPA considers to be a safe level.

BY SHANEN GIVONE: Okay. Do we not have TIs, technical impracticalities, I think is the word? I'm probably using the wrong -

BY MR. DOOLAN: Technical impractability waiver is not required because the numbers are what EPA requires. In fact, I think in some cases they were a little bit lower than what EPA recommended.

BY DR. DRAKE: And that was Tony, Tony Moore from the health department. Yes. Gentleman in the shirt here.

BY BRIAN HEDGCORTH: Brian Hedgcorth. I'm curious about the repository areas, long-term monitoring. You didn't really talk about how, you know, over time those are going to be monitored. Is there a plan for that?

BY MR. DOOLAN: We will - both EPA and the mining companies will require the landowners to put a covenant on their Deed that describes what the land - or the repositories can and cannot be used for. We've got a few of those in place already on the repositories the EPA has built. We've got a few more that underway. And I know that the mining companies are working on those. They're pretty simple documents. In essence, what they're going to say is that

you cannot build a residential structure on top of the repository, and that we don't want you drilling shallow groundwater well that's used for human consumption in the repository area. Other than that, it can still be developed for commercial. And the operation and maintenance is basically just coming out every - periodically, every year or so, and inspecting the repository to make sure that the cap is still in place, that you haven't built a house on top of it, that there isn't erosion going on that needs to be repaired. So it's not all that - but there is a document that you will be asked to sign that gets actually filed on your Deed at the County Assessor's Office. And the reason we do that is because we don't want somebody coming in fifteen, twenty years down the road when you sell the property, has no idea what happened there, and going in and digging into it, and re-exposing all those wastes, or trying to build a house, or worse yet, putting a daycare on it or something like that. So it's just a safety precaution to make sure that the wastes stay buried.

BY DR. DRAKE: Real quick, I - yes, sir. Real quick, I wanted to make a brief announcement that I should have said earlier. I think Debbie and Liz caught everyone walking through the front door, but if anyone has not signed up, we have a signup sheet for everyone tonight. We would just like your name, if you want to jot it down. We would like to know the attendants, and the interest, and so forth. So just - I saw a couple of people leave, so I wanted to make that announcement here before the end. So just, please, feel free to sign up if you didn't on your way in. And then the gentleman back here in the tan. Yes.

BY BOB WEST: My name is Bob West. I was wondering why zinc is included in all this. Why is it bad?

BY MR. DOOLAN: Why is zinc bad?

BY BOB WEST: Yes.

BY MR. DOOLAN: Zinc is very, very toxic to the aquatic environment. I mean, for people zinc is an essential nutrient. We take a vitamin, you know, it's got zinc in it. Or a lot of people, including myself,

feel a cold coming on, we take zinc.

BY BOB WEST: Oh, yes.

BY MR. DOOLAN: Zinc is very helpful to humans, but it's very toxic to fish. And some - it can be very toxic to horses in high concentrations. So some animals are not tolerant, and fish are certainly not tolerant. It's kind of strange that people don't like lead, and we tolerate a lot of zinc, fish can tolerate a lot of lead, but you can expose them to zinc and they go belly up.

BY BOB WEST: Wow.

BY DR. DRAKE: Okay. More questions? Okay. A couple of - oh, we have three hands up. Okay. We will go in the order that you raised your hands, because we're very democratic tonight. So I'll have to keep my visual mind of all three of you. So I think the gentleman in the red shirt had his hand up first. And, if you don't mind, just quickly repeat your name one more time.

BY JAMES RICHARDS: James Richards. Again, back to the Snowball development. I think it kind of goes in hand with what you

said. You notify the property owners months in advance before you start any procedures there and everything?

BY MR. DOOLAN: Yes.

BY JAMES RICHARDS: What if there's been development on top of some of that chat areas already?

BY MR. DOOLAN: Like you've brought in a bunch of clean fill and covered it?

BY JAMES RICHARDS: Yeah.

BY MR. DOOLAN: Great. I don't have to do anything with it then.

BY JAMES RICHARDS: Okay. So basically --

BY MR. DOOLAN: Thank you.

BY JAMES RICHARDS: You're very welcome. Actually, thank you for all your work you're doing. So, basically, that property is considered safe because it's not exposed chat?

BY MR. DOOLAN: If you put a sufficient amount of material on there.

BY JAMES RICHARDS: Three to four feet of topsoil.

BY MR. DOOLAN: That's more than

enough.

BY JAMES RICHARDS: Okay. For nine acres.

BY DR. DRAKE: Yes. I would second Mark that four feet is a great amount, a great amount of soil. That's more than we're putting on. I think the second person was the man in the plaid shirt back here.

BY STEVE HAGENSICKER: Steve Hagensicker. I've got forty acres on the very east side of Duenweg. Turkey Creek is my south boundary. In kind of the southeast part of my property is kind of a gravel bar. Then Mi Tierra Longhorn Ranch is just east of me. Now, they did have a big chat pile which they hauled most of that out, but what I'm - my question is, what would it take for somebody to come by and sample my soil to see how contaminated it is? I've got eight head of horses and mules running around, and I was kind of - would be curious how it rates on the contamination.

BY MR. DOOLAN: You're just wanting the property sampled to see what it is?

BY STEVE HAGENSICKER: Yeah.

BY MR. DOOLAN: We don't have anybody down here sampling right now. I don't know. Tony, is that something your guys could do?

BY TONY MOORE: We could possibly do that. Yeah.

BY MR. DOOLAN: We have an agreement with the county to do some sampling, especially for people that are wanting to sell topsoil or build a lot or something. So if you get a hold of the Jasper County Health Department, they could send somebody out to just take some quick samples and let you know what it looks like. The EPA doesn't have anybody down here doing sampling right now.

BY DR. DRAKE: Okay. The woman in the hound's-tooth here.

BY CYNTHIA YOUNG: Cynthia Young. Just a couple of comments. My yard was one of those that was cleaned. I will say I have a beautiful yard. So whatever you guys put on top of it after it got cleaned off, it's fantastic. And my grass is beautiful, so I really do appreciate was done in that. And, also, since I live in Webb City and I work in Carthage, I have been driving past all the

work that's being done between Webb City and Carterville, and it is such an improvement and such a pleasant sight, and I look forward to our community developing and using it, whereas before it was not. So I know you guys hear negative things, but there are a lot of positive things coming out of this, and I want you to know that.

BY MR. DOOLAN: Thank you. We appreciate that.

BY DR. DRAKE: Okay. More questions? Yes. In the white. And, if you don't mind, state your name.

BY LEISHA HOLDEN: Leisha Holden. I have - I'm back to where the people are in my area in Alba really getting - have been ill with cancers and heart disease and stuff. I mean, just - I could give you probably a list of a hundred people in Alba, Purcell, and Neck City that are sick. Dying with lung cancer. Young people. I mean, there's got to be something going on out there that's really bad. Myself, I have cardiac and liver disease, and I've not done drugs, no alcohol. And it goes to quite a few people - I live -

I swam in the mines when I was a kid, but we didn't know what was going to come in the last forty years. Isn't - I mean, is there a way you guys can test - because I have a mine in front of my house, a mine to the east of me, and three to the west of me. Within - within not even a fourth of a mile. And I live in the middle of Alba.

BY MR. DOOLAN: You want your yard soil tested?

BY LEISHA HOLDEN: I would really like to have.

BY MR. DOOLAN: Get with me and give me your address, because we may have already done it back when we were doing the residential yard cleanup. We tested quite a number of houses in the Neck, Alba, Purcell area.

BY LEISHA HOLDEN: I'm right on D Highway.

BY MR. DOOLAN: We tested quite a few houses up there, and there was only two or three that needed remediation. We'll just have to see what your address - I'll get with you right after.

BY LEISHA HOLDEN: Okay.

BY MR. DOOLAN: And I do certainly sympathize with the health problems, but I'm going to have to refer you to either the health department, or ATSDR, or the State Health Department about those concerns.

BY LEISHA HOLDEN: I mean, just the - just the soil is what I'm thinking, because it used to be a ballpark where the boys played on, but they brought - they brought a lot of gravel from the Sunflower area, which - and put in. They put gravel - the gravel in. They filled in a lot of our - when they put the sewer line and the new water lines in they went to the chat piles and got a lot of gravel and put - the only reason I know that is because my parents - my dad was the - on the - what am I trying to say. The committee. Yeah, well, he was alderman. And he - so naturally he was walking around. I'm going to walk around to see what's going on. Since he's passed. But I also remember what was down, where they got that stuff from, for our water lines and our sewer lines.

BY DR. DRAKE: Okay. Any more

questions? Okay. This is the last chance. We'll have one final chance for the remaining questions. All right. We thank you all for coming out tonight. Again, the public input is very important to us, and you have quite a bit of time left to contact Debbie Kring with questions, comments. If any of you have your - anyone who didn't really want to speak or talk tonight, if you have a blue card that you've filled out, go ahead and drop it with Debbie on the way out. You can also, again, contact her later. And just really thank you all for coming. And this public meeting is now closed.

(HEARING CONCLUDED)

REPORTER'S CERTIFICATE

STATE OF MISSOURI

ss.

COUNTY OF NEWTON

I, JILL A. RENFRO, C.C.R. 605, Certified Court Reporter and a Notary Public in and for the County of Newton and State of Missouri, do certify that the foregoing is a true and correct transcription of the Public Hearing held at Missouri Southern State University, in the City of Joplin, in Jasper County and said State.

GIVEN under my hand and notarial seal at my office in Newton County, and State of Missouri, this 19th day of August, 2013.

My commission expires: 2/18/2017

Reporter's costs to be paid by

Jill A. Renfro

Notary Public within and for

Newton County, Missouri.

JILL A. RENFRO
Notary Public – Notary Seal
STATE OF MISSOURI
Newton County
My Commission Expires Feb. 18, 2017
Commission #13461732

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