ARMY CORPS OF ENGINEERS
SOILS AND RESIDENTIAL FOUNDATION STUDY

PUBLIC MEETING

Held at the Holiday Inn, 6001 Rockside Road, Independence, Ohio, on Tuesday, the 2nd day of April, 2019, beginning at 7:00 p.m.
Good evening and welcome. I would like to introduce.

Welcome, everybody. I really appreciate you taking the time tonight. We're here to talk about the Harshaw Chemical site as a formerly utilized site, remedial action program site. We are going to discuss the proposed actions and what we are going to do to address that site tonight.

Before we get into the formal presentation, I want to recognize that we have numerous representatives from partner agencies; city, state, local. I just wanted to list out all those agencies we have here; it really shows the strength of our collaborative and collective partnership as we look at each of these sites.

We have the US EPA here tonight; we have the Northeastern Ohio Regional Sewer District; we have The City of Cleveland; we have BASF; we have Cleveland City Council; representatives from the Ohio Department of Health; the Ohio EPA; the Canalway Partners; Cleveland Metro Parks; Arcadis; Metrowest CDO
and Department of Energy Legacy Management Division. So thank you very much for taking the time and investing in partnership with us.

It really warms my heart to see all of the posters and all of my team busy up here answering questions and making sure that if you've got a curiosity, they are getting after it. We've got another session after so there is plenty of time. There will be time for formal comments, and then there will also be time for a poster session afterwards if you have follow-up questions or whatnot, or if you want to talk to each of the team members.

There are many sources of pride as a District Commander. The two I want to highlight tonight are that we have a distinguished history since 1857 serving the citizens and really the watershed of the two lower Great Lakes. The District boundary from the west is the Ohio/Indiana state line, and then to the east to New York.

We really pride ourselves in the service we provide and the variety of different business lines in the FUSRAP programs. The second real source of pride is the employees
that we have that are doing all of that work. That have done that work and that are presently doing that work. We've brought a pretty robust team with us tonight and I thought it would be helpful to introduce each of them so you see who is here tonight.

I think it will be helpful, if you have questions for some of them specifically, so I'll highlight a little bit of their expertise. So if you see the team assembled, it is a phenomenal team of experts tonight and I really want to highlight who all we've brought.

We are going to start off with is the Project Manager; he's going to be doing most of the presentation here in a few minutes. He has got 20 years of environmental and project management experience. He is my lead guy for all of the different moving pieces.

Working hand in hand with is . is standing right there. is my lead technical, so when it comes to the Project Engineer and the technical aspects of the site, is working with Steve to make sure we've got this addressed. She's got 13 years of environmental experience.
Then we have [redacted] sitting next to [redacted], she has got 27 years of environmental toxicology experience. So she is responsible mainly for evaluating the potential for human health and ecological risks, release of contamination into the environment. She is a well known name in this area of the country because she is just prolific in how involved she is in all the different projects.

Working with her is [redacted], she is a Health Physicist. So she is looking at the aspect of radiation support and waste management support. Also rounding out our project team is [redacted], [blue] is right there. [blue] is out working on our active remediation site in Lafayette, Ohio. He is daily going up and experiencing that, but he is also sitting on over 20 years of experience in environmental biology and health physics.

Also we've got here, [redacted]. [redacted] is sitting right next to [redacted]. [redacted] is looking at our groundwater; he is our main hydrogeologist. He is probably the most experienced hydro geologist in the Corps of Engineers with 29 years.
We've also got [REDACTED] was introducing me and [REDACTED] is sitting right there. We've got [REDACTED] and [REDACTED] who are both here, they are associated with other projects, but they are both here teaming on communication, making sure we are keeping open lines of communication and we've dedicated those efforts to that. That is how important that is, we've dedicated two people for that alone.

That rounds out our specific project delivery team. Also here is leadership support. We've got [REDACTED], Chief of Special Projects Branch. When we look at all of the different projects, all of the FUSRAP Programs within the District, [REDACTED] is on them. Also [REDACTED] happens to be a former Project Manager for the Harshaw Chemical site.

[REDACTED], you said it was five, ten years ago that you were working on it?

[REDACTED]: I wish; it was 2003.

[REDACTED] So early on in the process, so [REDACTED] has got some roots there. Also working with [REDACTED] we've got [REDACTED], who is my Chief of Environmental Branch, again,
with that project management and technical. Dave Frothingham has got 24 years of engineering experience as well.

David is our Team Leader for the Environmental Project Management Branch. He's got 23 years of experience working on engineering, environmental engineering, project management. David is sitting at the same table. David is the Team Leader for Environmental Engineering, he's got 21 years of environmental engineering experience.

David is sitting at the same table there. William has 11 years of physics experience, he is a Team Leader for Environmental Health. And then not here tonight is William, District Counsel. He apologizes for not being here tonight, but he will be available to reach out in another forum.

I did a quick tally of the collective team I just introduced you to. They have 268 years of collective experience working on FUSRAP and similar type work and that is including work that is ongoing. I want you to leave tonight rest assured that we have the very best team aligned against this project. And
that is only highlighting us inside the District and we pride ourselves on regional teaming. So other districts that are aforementioned here that have FUSRAP expertise, or related expertise, we will definitely leverage them, as well as their expertise. Now you know who is here tonight, so please ask the tough questions. in particular likes the tough questions.

I'm going to hand it over to here, I've just got one or two other points. This project is unique for the District as well. We have a Cleveland area office, so we have employees that are members of the community here. So not only is this project important to us as a national program to make sure it gets taken care of, but we have individual employees in our District that are invested.

The number one priority for our team when it comes to the FUSRAP sites and really all of our projects is human health, life safety and the environment. So we have that collective expertise aligned into that number one priority, so you are going to see that throughout the night as we talk about some of the specifics.
I'll just wrap it up by saying thank you. Thanks for investing and taking the time to come tonight and contribute to the process. We absolutely want your input, we value it. We are looking forward to your comments. Some of you have indicated you want to provide formal comments at the end. There will also be time for follow-up and talk with our team of experts after the presentation, if something comes up.

If you did not indicate that you wanted to comment, there will be a time at the very end. We do ask that you hold questions until the end that allows us to -- we have a recording system to make sure that we record your comments for the record. Did I miss anything as far as instruction? So with that, here is [redacted].

[Redacted]: Sure. Thank you, sir.

Good evening, everyone. Again, welcome. I'm here to tonight to present to you our proposed plan for the cleanup of the Harshaw site. First, I'd like to start with a brief history.

As you can see up here, there are a couple of photos. The photos on the left, the top photo is from around 1949 and the bottom
photo is from 2018. Basically that is just to show you the amount of change that has occurred at the site, the 55 acre former Harshaw Chemical Company site that I'll just call Harshaw from this point forward, so I don't have to keep saying it in its entirety.

It is located at 1000 Harvard Avenue in Cleveland, approximately five miles southwest of downtown Cleveland. This site is in a low lying area right next to the Cuyahoga River, you can see that here as well. It is surrounded by industry on three sides. The main portion of the facility, which is right there, at one time, it contained over 30 buildings and about 16 acres of land.

As you can see today, all of those buildings have been removed; I will talk a little bit about that. That was a combination of efforts of the Corps of Engineers and the owner. From 1944 to 1959 approximately 5,000 tons of uranium materials were processed.

It is no longer there, but you can see where G1 used to be. Building G1 was removed in the winter of 2014-2015 to address some health and safety hazards and to enable
further investigation of the contamination that
was beneath that building.

   Earlier investigations to address the
residual radiological contamination of the site
were conducted from 1976 to 1979, and the
current property owners conducted additional
investigation into the 1990s. And as I said,
numerous buildings have been demolished.
Actually all of the buildings -- well, the
former buildings, have been demolished, removed.

   As you can see, the map on the right
shows two operable units or OUs, as we call
them, that we are going to be talking about
tonight. Upper Unit 1 is the large area right
there. That is where the main chemical plant
was located. That is to the north; Operable
Unit 2 is to the south. I'll explain why there
are two operable units here in a little bit.

   This area that is shown right here is
known as Investigative Area 06, IA06. That was
already completed back in 2011, when we signed a
No Action Record of Decision, which meant that
there were no actions necessary for that
particular piece of land. Next slide.

   So as the federal program being used
to address this site is known as the Formerly Utilized Site Remedial Action Program or FUSRAP; we like to use acronyms. I'll do my best to tell you what each of those is. So the FUSRAP Program, the program was initiated in 1974 to identify, investigate, and if necessary, clean up or control these sites throughout the country that were contaminated as a result of the Manhattan Engineer District, or early Atomic Energy Commission activity.

If the words stuck out to you, the Manhattan Engineer District, yes, that was part of the Manhattan Project, our nation's early atomic weapons program. The objectives for FUSRAP Program are identified on the slide there.

And just to reiterate what the Commander said earlier, while we are performing the work, our top priority for all of the activities at the site is protection of the health and safety of not only the workers, but also the community and also environment. Next slide.

So what this slide shows is the CERCLA process. CERCLA stands for the
Comprehensive Environmental Response
Compensation and Liability Act, or as we call it, CERCLA. That is the process that we are required to follow under the FUSRAP Program for the investigation and cleanup of our FUSRAP sites.

As you can see, actions at the Harshaw site were started by the Department of Energy with a referral letter to the Corps of Engineers in 1999. Tonight, we are at the proposed plan phase, right there, for the Operable Units 1 and 2, which I'll get to here in just a moment. Next slide.

This looks very familiar. I just wanted to give you a time line of how this CERCLA process is played out at the Harshaw site. So FUSRAP began in 1974; the Harshaw site was included in the program in 2001 for further characterization and preliminary assessment.

The Corps of Engineers completed their remedial investigation of the site in 2009 to determine the nature and extent of the FUSRAP contamination and potential impact to human health and the environment. The feasibility study, which basically evaluates remedial
alternatives for the site, was completed in 2012.

And in March of this year, we released a feasibility study addendum. We did adjust our alternatives a little bit, based on investigation after the removal of Building G1, as I mentioned earlier. We also, at the same time, released the proposed plans for Operable Units 1 and 2, which is why we are here tonight.

The reason we are here tonight is that we need to gather your input and concerns and questions regarding what we put forth as our preferred alternatives, before we fill out the remedy for the site. And actually I will go over that process in a little more detail, but that is why we are here.

So once we move past the Proposed Plan phase, the next is the Record of Decision. That document will lay out what the selected remedy is for the project to be remediated.

Next slide.

So as I said, we have two operable units. The reason that there are two operable units has to do with two factors. One is determining the reasonable future land use for a
particular piece of land and the associated
critical group.

So the governing regulation that we
follow defines the critical group. And forgive
me, I am going to read this verbatim so that I
don't mess it up. "The critical group is the
group of individuals reasonably expected to
receive the greatest exposure to residual
radioactivity for any applicable set of
circumstances."

So essentially the people using the
land in the future, who would most likely
receive the greatest impact of any contamination
left there. If I flubbed that up, Karen can fix
that later.

So back to Operable Units 1 and 2.

So Operable Unit 1, which, if you remember, that
was the larger area where the actual chemical
plants was, the critical group for that is the
construction worker. The reason for that is
because the reasonable future land use for
Operable Unit 1 is anticipated to be a
combination of uses, but primarily for
industrial, commercial or recreational.

The construction worker is considered
a critical group because they would be reasonably expected to receive the greatest exposure under those circumstances.

Moving on to Operable Unit 2, the critical group for that one is a resident. The reason for that is -- so right now, Operable Unit 2, there is no development expected, at least in the near future. However, future planning by the City of Cleveland indicates that a portion of that could be used for residential development, or may be rezoned for residential.

So in doing our evaluations, we had to assume that that property could, someday, be used for residential development. Therefore, the critical group for that is the resident.

So we'll start with Operable Unit 1. If you didn't see it before, we have a poster for both of these and a lot of other things. But if you need to see that in more detail, I invite you to look at the poster.

Basically the pink areas shown here are where FUSRAP contamination is present that proposed a risk to critical user, which in Operable Unit 1 were the construction workers. The little dots inside the pink areas represent
locations where we've collected soil samples. In addition to those dots, there are a lot of other areas where soil samples were collected. They don't show up very well on here; but they do show up very well on the poster. So if you would like to see the full extent of the sampling we did at the site, I invite you to take a look at the poster after the presentation.

As I mentioned, reasonable future land use is industrial, critical group is the construction worker. Next we are going to talk about the groundwater at Operable Unit 1. This slide is showing that there are impacts to groundwater from the FUSRAP related contaminate.

I want you to notice these lines here that represent not only the location of the contamination, but also concentration. What we found is that the contamination was mostly centered on that building, G1. In case you didn't remember, that is basically the location where Building G1 was.

The primary water bearing zones underneath the site are not used as a drinking source. Obviously the City of Cleveland and
surrounding areas, just like we do in Buffalo, we get our drinking water from Lake Erie. So the groundwater at the site is not used as a drinking water source.

Groundwater from the site does discharge into Big Creek and to the Cuyahoga River. However, our sampling and our data and our modeling to date have shown that the contamination is not migrating off of the site. Our samples from the river have shown no known impact above allowable levels.

Just to reemphasize, as long as the groundwater in Operable Unit 1 is not used as a drinking source, exposure to contamination from the groundwater would not pose a risk to human health, or to workers on the site.

Next, we will talk about surface water in Operable Unit 1. This map, again, shows contaminated soil areas in the yellow shaded areas that you can see here on the figure. The blue shaded area represents the 100 year flood inundation zone. So in the event of a 100 year flood, that would be where the waters from the river would breach.

Right now, our groundwater model
predicts that the rain in transport would not increase in the future to the surface water. We also conducted hydraulic modeling to determine the potential for erosion, particularly along the Cuyahoga River and also along Big Creek, over a 1,000 year period.

I'm going to talk about the criteria that we used to evaluate. One of those, when we are doing our evaluation, we have to consider what the impact to the site will be over a 1,000 year period. In looking at that, we do have the remediate alternatives that do include methods to reduce that erosion risk.

Finally, the Operable Unit 1 ecology. As part of the remedial investigation, we did perform an ecological risk assessment to determine if there were any potential adverse effects on the environment. The results of that risk assessment indicate that there was no action required for the protection of ecological receptors, for example, plants, animals and fish.

Okay. We are going to get into the remedial alternatives now for each of the Operable Units. So these were the three
alternatives that we considered in the feasibility study for Operable Unit 1.

As you can see there, Alternative 1 is crossed off. Alternative 1, or the "no action alternative" as it is called, is required under CERCLA to serve as a comparison, so that is why it appears here. It was established for comparison purposes only. However, since the no action alternative was not protective of human health or the environment, it was removed from further consideration. We are going to talk about this in more detail.

Alternative 3 is our preferred alternative for the site: Complete removal of the contaminated soil and offsite disposal at a licensed disposal facility. So I'll go over each of those alternatives individually now.

As I said, the no action alternative just like it is named. It means we do nothing at the site. It is required by CERCLA, so we did consider it. However, it provides no protection to human health and the environment, so as I said, it was removed from further consideration.

Of the remaining two, Alternative 2
is known as the limited action and land use controls. Basically land use controls would consist of environmental covenants or deed restrictions that would be applied to the land and restrict future uses of that property to minimize the exposure to FUSRAP contamination.

Access controls would further reduce that potential for human exposure to the critical group. Active controls typically consist of fencing; there is fencing around the site now. This would include probably additional fencing around those areas where FUSRAP contamination was located.

Informational tools would include posting signs and placards to let people know about the presence of FUSRAP contamination that was left there. The Land Use Control Plan, which would be prepared as the Record of Decision, would detail all of this very specifically.

Also under that bank stabilization along the Cuyahoga River. If you remember back to what I said earlier about the erosion studies that we did. And that would be to minimize any potential bank erosion which could expose FUSRAP
contamination and also to minimize any impact to
the environment.

Under this alternative, the site
could be used for passive recreation like a
walking path, or things like that. Because this
alternative would leave the site in a state that
was not unrestricted use, we would have to
conduct five year reviews to ensure that the
FUSRAP contamination did not become more of a
risk to human health.

The duration of this alternative
would be approximately six months and would cost
approximately $4.5 million with an annual cost
of about $66,000 for those five year reviews.
And then finally, our preferred alternative, as
I mentioned, complete removal with offsite
disposal.

So this alternative consists of
excavating approximately 10,000 cubic yards of
soil, would be the cleanup goal. With offsite
disposal to a properly permitted disposal
facility. This alternative will also require
five year reviews because based on the
reasonable future land use and critical group,
there would be levels remaining that would not
permit the site for basically what we call unlimited use or unrestricted exposure. UUUE, that is another one of our favorite acronyms. Since under FUSRAP, we are only authorized to address FUSRAP contamination, any other contamination left there at the site would be addressed by the site owner. As I said, we are only authorized to address FUSRAP contamination, unless there is other contamination commingled with FUSRAP contamination that could not be separated.

The capital costs for this is a little bit more than Alternative 2; approximately $32 million. Also that annual operations and maintenance cost associated with those five year reviews. And it is estimated it would take about two and a half years to complete this alternative.

I want to talk a little bit about how we evaluate these alternatives. CERCLA specifies that there are nine criteria that are used to evaluate each alternative and they are shown here on the slide. They are in three groups for a reason. Basically you would read this from left to right.
So those first two that you see on the left side, those are the threshold criteria. As you can see, they are protection of human health and the environment and compliance with applicable or relevant and appropriate requirements. Those must be met in order for an alternative to be considered further. That is why the no action alternative was not considered further, because it does not meet the threshold criteria.

For alternatives that do meet the threshold criteria, you look at that middle column, those are known as the balancing criteria. Each alternative is evaluated for those five criteria, and then those balancing criteria, as the name implies, are used to weigh the major tradeoffs among the alternatives.

Those are the primary criteria upon which our detailed evaluation is based and from which we select our preferred alternative. Finally, the last column, the remaining two are known as modifying criteria public and those are evaluated following the public commentary, what we are doing here tonight.

As I said before, the reason we are
here is to present this and also to get your
input and feedback on our preferred alternatives
because those will be considered in developing
what will eventually become the selected remedy
for the site.

So here is a table that shows that
comparative analysis we performed for Operable
Unit 1, Alternatives 2 and 3, using those
balancing criteria. As I mentioned earlier,
both 2 and 3 met the threshold criteria, so they
moved on for further consideration.

Alternative 3 provides the best
balance of tradeoffs when compared with
Alternative 2. As you see, Alternative 3
provides a higher degree of long term
effectiveness, permanence and implementability.
And we determined that those balancing criteria
outweigh the higher cost of Alternative 3.

Next, we will talk about Operable
Unit 2. Just to remind you, that is the portion
there to the south. So a real quick recap: The
future land use for that was assumed to be
residential. The critical group for Operable
Unit 2 is the resident.

Again, as I mentioned earlier, the
pink areas are the areas of soil contamination. The small black dots are where we collected soil samples. There are many more than that; they are on the poster, if you wish to see those up close. That is it for Operable Unit 2.

Sorry, I got ahead of myself. So similar to Operable Unit 1, we considered three alternatives for Operable Unit 2. Again, the no action alternative was removed from further consideration, but it has to be there per CERCLA.

As you can see, Alternative 7 is our preferred alternative, for reasons that I'll go into here shortly. Alternative 6 is very similar to Alternative 2 for Operable Unit 1, same thing: Limited action on land use control, would all be the same environmental covenants and deed restrictions; access controls to prevent entry to the site; informational tools to let people know that contamination is still there.

Similar to Operable Unit 1, under this alternative the land could be used for passive recreation. Also similar to Alternative 2 from Operable Unit 1, five year reviews would
be necessary because we would not be removing the FUSRAP contamination that is present.

The capital cost is just under $2.5 million. That annual O and M cost associated with the five year reviews is about $46,000 and we estimate the implementation would be about six months. Moving on to Alternative 7, which is our preferred alternative, it consists of excavating approximately 800 cubic yards of impacted soil that exceed our cleanup criteria.

That would be transported to an offsite facility that is permitted to receive those materials. This action, similar to Operable Unit 1, since we would only be addressing the FUSRAP contamination, there would be further State removal coordination required for any remaining contamination not associated with the FUSRAP Program.

The capital cost for Alternative 7 is just under $6 million and we estimate that it could be implemented in about one and a half years. Again, here is the comparative analysis of those five balancing criteria for the two alternatives considered for Operable Unit 2.

Again, very similar to Operable Unit
1, Alternative 7 provides the best balance of tradeoffs when compared to Alternative 6. As you can see, with a higher degree of long term effectiveness, permanence and implementability. Again, we believe that those benefits outweigh the higher cost of Alternative 7. Although in this instance, the cost is much less.

So just to recap what we just went through, basically our preferred alternative in the proposed plan for Operable Unit 1 is Alternative 3: Complete removal and offsite disposal. We would excavate the FUSRAP contaminated soils that exceed our cleanup goals for the protection of the construction workers.

The contaminated soils would be disposed of at a properly licensed and permitted disposal facility. Capital cost is $32.5 million; there would be five year reviews required and it would take about two and a half years.

Again, just to recap for Operable Unit 2, our preferred alternative is Alternative 7, also complete removal with offsite disposal. Again, we would excavate all of the FUSRAP contaminated soil that exceeded our cleanup
goals for a resident. Those soils would be disposed of at a properly licensed disposal facility. It would cost about $6 million and would take about a year and a half.

So here are the next steps: The proposed plan was released on March 14th, which began the public comment period, the 60 day public comment period, so that began on March 14th and will end on May 14th. Then after careful consideration of all the comments that we receive, not only tonight, but comments can be received in writing during that review period.

After we receive those and after careful consideration, we will use those to determine the selected remedy for each of the Operable Units, and those will be published, if you will, in the Record of Decision.

Currently, we are scheduled to complete the Record of Decision by the end of calendar year 2020, so a little over a year from now. Once the Record of Decision is signed, the start of the remedial design action phases begin and that depends on the funding available in the FUSRAP Program.
This completes my presentation on the preferred alternatives for the Harshaw site. I'll turn you back over to [Name].

[Name]: Thank you. So what we are going to do now is get to the second portion for tonight. If you have any questions or formal comments that you want to enter into the public record. [Name] has listed out a couple of logistics here, ground rules if you will. So we have got sign in cards and I received seven that stated they would like to make comments. Some of them just said "maybe." So comments or questions are welcome.

We've got a stenographer here and she'll be recording and so what we would like to do is start with the seven I'll call forward. And also I expect there will be opportunity for other questions or comments that you would like to enter into the public record. We would like to keep one person speaking at a time so that we can make sure to get it on the record accurately.

Please step up to the microphone so all can hear your comment or question. We also
ask that state your name and any affiliation
with an organization or agency and that again,
goes into the record. Just so that we allow
enough time for all, we are going to go with
five minute blocks, so please limit your
questions or comments to five minutes and we'll
go from there. So we will start off with
from Big Creek Connect.

My name is and I'm from Big Creek Connect as well as
and I'm from Big Creek Connect as well as
. We are on the board formerly of
Friends of Big Creek and we now are Big Creek
Connect. We are 21 years of working with the
trails and water purity and environmental study
here in -- we are located in Brooklyn.

My question is on page 2 of your
handout, the groundwater model, the second
statement, sentence, "The site groundwater is
currently being treated for nickel contamination
by another party." I would like to have someone
explain what the environmental effect is of
nickel contamination. And who is the other
party?

: I think our
resident expert for groundwater is .
1 you want to take that one?
2
3 So the Army Corps
4 of Engineers, we came to the site and pretty
5 much our contamination that we looked at is
6 uranium thorium radium. So the nickel
7 contamination is on site from the industrial
8 process from the private landowner, BASF.
9
10 So they operate that system and that
11 is designed kind of like a sump pump system.
12 Correct me if I'm wrong in any way. What it
13 does is it de-waters or takes nickel
14 contaminated groundwater out of the area near
15 the sewer line that kind of runs through the
16 middle of the site north from Chem-Solvents down
17 to the western edge of the site and out in to
18 the trunk line of the sewer at the street.
19
20 So what they do is they remove nickel
21 through like a slurping process that removes
22 nickel from that bedding along the sewer line,
23 or the gravel around it. They collect it, they
24 treat it on site in a treatment system and they
25 essentially scrub it from the groundwater. And
26 then that effluent is then rechanneled into the
27 sewer system as a clean effluent after removing
28 the nickel.
So what it tries to do is limit the amount of infiltration into the sewer line of the high nickel groundwater that is onsite.

Also an addendum, there are two trails that are in process and the representatives are here for that, those trails, and the trailhead is -- and they will know. Does that have any effect to any people hiking, biking in the future, or that is going to be taken care of?

For the groundwater or the nickel?

That is EPA. There is an EPA individual here and we can introduce you to her and you can chat with her afterwards.

Thank you.

, thanks.

I'm outside counsel for BASF. I want to thank you all for the information tonight. I represent the property owner, BASF. As you know, they are not only the property owner, but we are performing our own remediation on the site. For the past year or so we have been
requesting to have discussions with the Army Corps as well as the EPA to coordinate that remediation with the remediation that is being proposed under FUSRAP.

And the purpose of that coordination is to make sure that the remedies are performed as efficiently and as timely as possible, so not only can we complete our regulatory obligations in accordance with our obligation, but to get the property redeployed as soon as possible, as I know the community is interested in doing.

We are very encouraged by the various discussions we have had today with all of the various representatives of the Army Corps. We look forward to having those discussions and redeploying the property as soon as possible.

Thank you.

[blank]: I appreciate it. We did have a chance to talk, so I think there is definitely an opportunity for coordination.

[blank], you indicated that maybe you would like to speak. Now is the opportunity.

[blank]: I teach special ed and my concern is that I have a lot of kids who
I have disabilities because of pollution and that is why I'm here tonight. My husband also works for the City of Cleveland EPA. I just came to educate myself more about this because this is breaking my heart right now, worrying about future kids.

I guess an overarching question is why would it be zoned for people to use in the future for like building in a flood zone if we don't do that and we don't recommended people do that. I don't understand why if there is a potential for risk for people to live there, for construction workers, and why if the feasibility study was done in 2012, why was there no action since then?

What will be done to protect and monitor until the actions do take place? Where does one comment? You said that it is open until the 14th of May, but not where. It seems like different agencies. Is there something overarching it all? There is the EPA; there is you guys; what is overseeing it all?

Let me answer just the where; that is an easy one. There we go. So everything that we are recording now will go
into the public record. As far as additional opportunities for formal comments for the record, this is the address for points of contact and e-mail address.

So that would be the answer to one of the eight questions I think you asked. We'll try to address each of them, but we might need you to repeat them because I didn't have an opportunity to write them all down.

[Redacted], do you want to handle the first one? We caught that one, then we will go from there.

[Redacted]: Sure. So with respect to the rezoning, which I presume you were referring to Operable Unit 2 --

[Redacted]: And 1. I mean, why would you put people on either of them whether they are going to work there or live there? I just don't understand that.

[Redacted]: Sure. We don't have anything to do with the rezoning of that property. The reason we look at that is to try to gather as much information as we can in order to determine reasonable future land use and to determine the critical group to do our risk
So although we are not aware of any plans right now, or in the near future, to rezone Operable Unit 1 for residential. But based on information that we did have, there is the potential for that in the future.

There is nothing specific that says it will be rezoned, but there is the potential for it to be, so --

You talked about it being used for construction and construction workers as well, right?

Well, Operable Unit 1, that is already zoned for industrial use. There would be no change to that and we are not aware of any proposals or plans to rezone that, for example, residential.

So, does that address the question on rezoning?

Not pleasantly.

Did we get the next the question? Why was the feasibility study done in 2012 and nothing done until now, [redacted]?

So during the remedial investigation of the FUSRAP site, we
determined that there was no immediate threat to
the human health or the environment, based on
the contamination there. So there wasn't a need
to begin a more immediate remedial action to
address that contamination. It was contained
and it is contained.

Where our evaluation shows that the
risk levels would be unacceptable is over that
long term timeframe, that thousand years that I
spoke of.

And the other one
was: What will be done to protect, monitor
until you do take further action?

I mean the same
monitoring and protection that is there right
now. I mean, nothing --

Okay.

Correct. Well, the
fence is there to prevent people from accessing
the property.

Is there any
concern about the quality of air or no?

No air concerns.

Then the last thing
was that it seems like there are agencies here
and there taking care of this part and that part. Is there something overseeing all of this?

Well, I guess the best answer I could give is, no, there is no one overarching agency in charge of the entire thing. Like I say, we are under the FUSRAP Program.

So there is no accountability to one --

Each agency is accountable under the law. So I mean, each agency has different authority. I think that is sort of what Steve is getting after. For this particular program, the FUSRAP Program, we have certain authority, so the Corps of Engineers has to operate under that authority.

We do work in collaboration with the US EPA. So we work with them on a variety of different programs that include FUSRAP of some of these sites. There isn't necessarily one federal government agency that oversees everything.

Similarly, we work with the Department of Energy and Legacy Management.
Once the site has been remediated, we would hand that site to Legacy Management, so those are established relationships.

Each of those federal agencies are accountable under their authority, but there isn't one overarching government organization. I mean, we are all members of the executive branch. So in that way --

[Speaker] I'm not a big fan of the current administration.

That is noted on the record as well. Hopefully, that answered your question. Okay.

[Speaker] (Inaudible.) To help with clarity, absolutely, you'll have an opportunity.

[Speaker] Thank you, I'm Councilman [Name]. I just wanted to speak on the zoning side. First and foremost, every one of these categories that we talked about early on, in the first one, no action is not acceptable.

The idea of -- I don't think the comparison to a flood zone or building someplace that is going to be under hazard of a flood or
collapse is necessarily the comparison. The comparison for us is 22 acres of land.

That is a very desirable area; there is a lot of activity going on around there between what they are doing with the trails and connection to the river, the industrial development and expansion that is going on.

So from a city standpoint, we want to see that we claim the highest and best use we can so that we can put that 22 acres back into use, however we go through that process and having community engagement. As stated, the zoning right now is industrial and we are going to continue to work toward getting this cleaned up as best as possible to recapture the 22 acres and put it to good, productive use for whatever category we end up landing in, once it gets cleaned up.

Thank you, Councilman. He had here "maybe," I guess that is a yes as he walks to the microphone.

Thank you for allowing me to speak on this issue. I go back to 2001, that little box that said in 2001 we
are going to investigate this again, I'm one of the persons that was in the meeting room in Buffalo with a whole array of experts from the Army Corps at the time. And this was the kickoff of what was going to be this plan. That was some time ago.

It was kind of interesting, on lunch break, when we talked about what we call the "hot building" today, and you know, meeting people for the first time and saying, "What do you think about the hot building? Is it going to stay?" They said, "No way; that building has to go."

Day one, we knew that building had to go. That building finally went in 2015. And it went, by the way, after us being told repeatedly, and George Cantor of City Planning, he was in one of these stakeholder meetings that happened along the way, that there is just no way. You've got to follow this process. You can't tear the building down until you've done A, B, C, D, E, F, G.

Well, we found out that one year when they had money they had to spend or lose it, the Army Corps was able to figure out how to get rid
of that building. By the way, that was the right move, no doubt about it in my mind.

When you look at those issues that they've presented in terms of the standards, there is a reason why the construction worker and residential -- because these come with different cleanup standards. In fact, the strictest one they could have come up with, although, again, completely unreasonable, would have been an agrarian farmer.

Somebody who was going to live on the land, grow the food they eat and be there probably 15 or 16 hours a day. Now, that would have been the strictest cleanup criteria that you would have had to face with this project, if it was adopted and that was your screening the device.

As you can see, they said one part of the parcels, they want to look at industry and the construction worker. And really the exposure there is when you are building the building, when you are cutting into the ground, that's where you are going to get exposed, so to me, residential has construction worker in it as well.
That first meeting in 2001, I think it is kind of important, when we went to that meeting, we came with a concept plan that talked about a future use of this property that was going to play off the Towpath trails, so it would look good. To integrate a system that would snake its way down to Big Creek to the zoo. And it was going to end up being a new page in the ongoing story of the Cuyahoga River Valley.

And that is kind of a moment today, because we are here on the edge of a 50 year anniversary of the last time our river caught on fire. You guys probably heard about that, right? Anyway, that incident launched many good things.

And I think today, when you look at the river value and all the investment that has been going on, it is hard to predict, Tony. Maybe there will be a need for residential here.

However, I think, if I'm not wrong here, the site that we are looking at for potential residential, that is basically a capped landfill right now. So that has uranium perhaps in it when they capped it so it is
safer, so it won't expose everyone.

So when I look at the price tags there of $32 million, plus another nine, $40 million worth of investment here. And the alternative that were faced, it makes me wonder if there weren't another highbred alternative and there isn't some planning that ought to happen here that talks about the ultimate future of this property and its role in the community.

We have tremendous flooding problems down in this area. If we are going to go and take these parcels on, is there an opportunity to kind of shape the parcels in a manner that they could hold extra water during heavy flood times? So instead of Jennings Road becoming a river, we keep the water in the river. Perhaps, I don't know; I'm not an engineer.

But there ought to be something we might at least look at because we might miss an opportunity there. Is that a property that is going to lay in the cross hairs of a trail system that could have investment that looks a lot more like people have invested in the little town of Peninsula, Ohio? I think it is something we ought to explore.
But I don't think that at the end of the day, the $40 million we put in here, that the cost -- or the value of the property -- is going to be equal to the amount of money that we put in. But I'm wondering -- and I'm all for cleaning it up, trust me; I understand human health, et cetera.

But I also understand that I think there is a highbred approach that could look to stabilize the conditions. Things like topping, capping it with a parking lot that we need for trail users, for instance. That could stop migration of any uranium left in the soil.

Right now it is not a big problem, as they reported, with groundwater. So you know, as we rush forward to approve this, we ought to take a time out and try to think of other community based solutions and community based improvements so that at the end, we do all the things we want to do here. Everybody wants a clean environment for everyone's health and safety.

But maybe deliver a product that benefits the community as we move forward.

Thank you.
thanks for your input. We welcome that to look at other alternatives. So as we look at future land use, part of it is remediating to get to the point to look at future land use, so thank you. you indicated you might want to comment or ask a question. Ma'am, if you could come up to the microphone.

: So my question is about goals for Operable Units 1 and 2. Upper Unit 1 had, I think as one of the goals, was bank stabilization, but I didn't see that for Operable Unit 2. So I was wondering about, after looking at the 100 year flood maps, whether or not besides the construction worker exposure scenario, whether there was any modeling of flooding along the banks, and then particulate transport into the waterways, if that was considered?

My other question is: Operable Unit 2 doesn't seem to have very many sampling points. I was wondering what the historical land use was there. I think there was another landfill on that property, but I don't know anything about that and it doesn't look like it
was sampled. So those are my questions.

Maybe we will separate out the sampling scheme versus the latter question. The first couple of questions were related to the hydrology of the site, like flood risk, and so forth, transport risk, for Operable Unit 2. So maybe -- do you want to start off with that and maybe another member of the technical team something you don't catch there.

The difference between Operable Unit 1, Alternative 2 and Alternative 3, relative to bank stabilization is since Alternative 2 will leave material in place, we have material that is close to the river bank. So therefore, that area would be armored, if you want say, it is stabilized.

The bank stabilization, in some way, shape or form. We don't have a specific thing for the Army Corps of Engineers, we use big rocks sometimes. So that would be incorporated into that alternative to kind of protect the left in place contamination.

That is not included in Alternative 3 because that material that is near the bank
would actually be removed. So therefore, it would be gone. So we would backfill the bank area with local, native materials like from a quarry, or something like that. And then that wouldn't require -- there would be nothing to protect other than soils.

We would probably, you know, geotechnically stabilize the bank so that we have erosion protection, but we wouldn't armor it like we would in the other alternative.

Does that answer the first part of your question?

So within the 100 year floodplain portion, you would have clean fill once the contamination is treated?

It would be clean fill, yeah. It would have to be very specific. The 100 year floodplain towards Operable Unit 1, which is the industrial site, the chemical site, that 100 year flood actually still stays in the channel. It doesn't come up onto the plateau where the plant once was.

The 500 year flood will. And it inundates the surface by about a couple of inches; that is what we predicted. We would
protect in a 100 year flood on down because that
is where you would see the most erosive forces.

If you had a 500 year flood in the
area, it would look a lot more like a lake than
a river. So the sheer stresses of the moving
water would be a lot less because it would be
literally -- that site would be your least worry
at that point in time for the local community.
It would be that everybody's houses would be
floating.

So that is why we design to the 100
year event, because those have been where you
see the most erosive forces.

My other question
was: Operable Unit 2, what was the land use
there? That wasn't sampled there as much. What
was the rationale?

Just to speak to
the rationale behind the sampling scheme. Yeah,
we've got about four or five people that could
answer that.

In doing the bank
stabilization, would that increase
channelization of Big Creek or the Cuyahoga
River, those channelizations?
No, she is asking if it would induce channelization of the river. And what we would probably do is use the existing bank and just work with that. We wouldn't change the course of any of the waterways.

Thank you.

Do you want to talk about sampling?

Yeah. So for OU2, we sampled -- there was an array of sampling that occurred. Most of the sampling was focused on where we saw radioactivity with a gamma walkover survey, which is like a radiologic detector that you walk around with that you define where your contamination is.

And a lot of the material that we see in OU2, where we sampled and found contamination above the residential criteria, a lot of it was debris, like bricking and materials that were not muck soil-like, but more materials and brick work and stuff like that that we would do more of like a debris cleanup -- as well as some soil around it, but mainly debris cleanup.

That is not a
capped landfill?

The capped landfill, that is the site owner of this land. We didn't build that piece.

The site owner was Chevron.

Is that a trucking company there now?

Yeah. The parking lot and the building, is a trucking company.

Was it formerly owned by Chevron?

I cannot recall who actually owned that property, but I think Chevron owned the property.

Thanks, [victim]. Like I said, [victim] likes the hard questions too. He's been the one in the hot seat there.

[Attorney]: Thank you. I'm from the Northeast Ohio Regional Sewer District? [Attorney]: from the Northeast Ohio Regional Sewer District. So our concern of the site is groundwater. There has been talk that the groundwater isn't a concern, but there is an
active site sanitary sewer that remains on the property in the general vicinity of Building G1. There is no sanitary usage on the property, but we continue to see flow in that sanitary sewer discharging into the public beltline sewer. We tested that water and it does have measurable concentrations of radioisotopes below the OAC standards, but nonetheless, there is migration.

As you go into that site and disrupt the surface soils and perhaps change the way the groundwater is behaving, we have concern that there will be additional migration of radioisotopes to that active sanitary sewer system.

So what we would like to see is similar to what happened with the storm system that was connected to the Cuyahoga River when there was concerns of radioactive isotopes discharging into the river, to have that system disconnected from the public sewer so that there is no conduit for those pollutants to reach the public sewer.

We also know that the beltline sewer, the public sewer that runs through the property
and in very close proximity to Building G1, is susceptible to infiltration, which is why there is the nickel collection system. So we need to be sure that as the conditions are changed at that site, that there is no allowance for water to change its flow direction and to become hydrostatic pressure on that pipe and on that collection system and to further contaminate the nickel recovery, or to infiltrate the beltline sewer system.

Our preference would be to have that disconnected before you begin any remediation efforts. Now, as I understand it, you are kind of only allowed to access the footprint of what is the federal site and what the federal camp has to occur. And that manhole connection point where that site sanitary sewer connects to the beltline, may not be in your footprint; it may be in the footprint of Harshaw and BASF.

I would hope that for the sake of the community that the two legal teams would be able to make sure that there are no access issues for the FUSRAP remediation to disconnect that system if it is not within your service area.

We have drawings and are more than
happy to work with you and provide data. I had a good conversation with [redacted] and provided him some things. For the record, I just wanted to put our concerns out there.

Thank you. Just for the record, that was [redacted] or [redacted]

Then you were talking to the right guy. Last is [redacted].

I am with the City of Cleveland. I'm going to raise the groundwater as well. I wanted to know how deep is the contaminated groundwater? This is all on OU1. You talked about having it for construction workers and I wanted to know if you took in modeling of construction above and below the frost line builds and is that taken into any play? Is the groundwater above or below the frost line?

I don't know anything about the technical, but I know, you know, generally enough to say, hey. I'm going to go on to the Sewer District here. Are there any sewers, public or private, that you know of on OU1? How
deep are those? Are any of those sewers grouted?

And if the groundwater won't travel as you are claiming in your report, how did it previously migrate, as Mr. Broski was saying, when it got into the river? So the those are my questions.

[Speaker]: You are up again. Those are good questions.

[Speaker]: I can't remember some things.

[Speaker]: I know. I think I caught one.

[Speaker]: I'll say it again.

[Speaker]: We'll make sure we get it. Let's start off with the first one.

[Speaker]: That was the frost line?

[Speaker]: How deep is the contamination of the groundwater?

[Speaker]: So the groundwater at the site essentially exists from about three or four feet below the ground surface, like around the plant, to upwards around 15 to
20 feet deep as you go out towards the river, so it has a radial slope away from the main part of the plant that kind of goes up in a couple of directions. The river eventually becomes its discharge point.

[Redacted]: As close as three feet you said?

[Redacted]: In the past it has been. It varies a lot; it has seasonality to it. So during a rainfall event, it goes up a little bit, then it drains and goes down. On average it will vary between three, four. We have wells that are within like 20 or 30 feet of each other that will have a couple of feet expression, a couple of feet difference.

And then within the frost line -- we pretty much consider that to be below the frost line, so that never really became an issue. We've never noticed issues with wells, so to speak, frozen wells.

[Redacted]: Well, I asked that because building footers have to go a certain depth under code for frost lines.

[Redacted]: Right. That kind of harkens back to the exposure of the -- you
I know, the construction worker exposure. And the sewer system is one; did I get that right?

Yes. Are there public or private that you know of on OU1?

The gentleman here can explain how --

Well, I am asking what you guys knew from your investigation of specifically OU1.

Most of the sewer systems that we looked at onsite were either the storm sewer that ran from the main plant out to the Cuyahoga, that was an issue a couple years ago. That, the site owner addressed by having their removal.

And then we also grouted some of the manholes that were the receiving manholes by G1, when we took the G1 building down. So we actually grouted up the manholes that were kind of feeding that trunk line that went on to the river.

Is that information in your public body of info?

Yes, in the feasibility study and the addendum.
It's in the addendum?

Yeah. It would be in the G1 deconstruction report that is also online. There are two reports. The deconstruction part of the FS addendum appendix, is that a separate --

That is a separate document.

And it is online?

Yeah. And it talks about private sewers on the facility. Those are all mapped and that information is pretty much in the RI as well.

Is it in your footprint that you have control over that you are aware of; are any of those?

Do you mean soils that we are going to go dig up?

Any of the sewers specifically within your footprint that you are responsible for. Not BASF, but the footprint under FUSRAP.

Yeah. Well, the FUSRAP contamination kind of extends both on
Chevron's property and BASF's property. Our contamination is a little bit like this, it doesn't pay attention to fence lines. So if we are cleaning up our contamination and we come across sewer systems, we try not to violate the integrity of these systems, we clean up around them.

So you leave them place, is that what you are saying?

Yeah.

And you are leaving contaminated groundwater on site that can get into those sewer systems?

In the end, that could happen, yes. There could be residual groundwater in the end that could be a risk to those sewer systems.

When you say "grouting," was the sewer a brick lined sewer in the sense of bricks with grout, or is it a more solid construction?

, when we exposed some of those, what did they look like? The ones we grouted were brick. They were actually brick and
And brick can be very strong, but it can also shift. And mortar can deteriorate on a property that made hydrochloric acid. So the age of those and prior site usage can exacerbate those issues as well.

So that is the extent of those that filled out a card. We do have a few more minutes, so if there are any questions. I see two hands, so, ma'am, if want to say your name.

Thank you. I'm and I'm a resident of the South Hills neighborhood. Will whoever's purview my question falls under please answer. I have a specific, brief question. The fact that people living near uranium processing mills or facilities could be exposed to more uranium than the general population.

In addition to its radiotoxicity, uranium possesses a chemical toxicity, which has not yet been addressed. Uranium is absorbed and deposited throughout the human body with the highest levels found in the bone, liver and
kidneys. Kidney damage has been seen in humans after inhaling uranium compounds.

My question is: Will the proposed Army Corps of Engineers remediation activities reduce the residents' exposure to airborne radioisotope inhalants and if not, how will such exposure be minimized?

do you want to take that one?

, an environmental toxicologist with the Army Corps of Engineers. As the Commander explained we had health systems look at the radioactive properties of the contaminants and toxicologists look at the chemical toxicity of uranium specifically. That is something that we did address.

We evaluated that in conjunction with looking at the radioactive properties to make sure that the cleanup would be protective generally against any radiation effects, but also against the chemical toxicity of uranium, which, as you stated, affects the kidneys and can cause kidney damage.

So as we do look at both, we will
make sure that we are protective of both chemical toxicity and also of uranium. So when we do the cleanup and the excavation, we will have air monitors all around to make sure that nothing is going offsite in the air that could be harmful to the community. Hopefully that answers your question.

[Blank]: And what if something is caught on the air monitor; what do you do then?

[Blank]: We have rules we would react with. We would shut down or change our construction techniques to minimize dust. We are using dust compression techniques, water it down.

[Blank]: Thank you, Ma'am. Ma'am, did you have another question?

[Blank]: Real quick. In the summer of 2015 in northern St. Louis County, Missouri, the Corps of Engineers documented the presence of radioactive isotopes as the result of a leaking landfill.

Consultants for the Missouri Attorney General found and reported scientific documentation of offsite migration of both

toxins and isotopes from that. I understand what your toxicologist said earlier about having air monitors and watering down the material before it is removed.

Are there other actions that can be taken to either reduce or eliminate residential exposure both in terms of toxicity of chemical nature and radiologic nature beside watering down and having monitors?

Anybody from the team can answer that. If you want to -- we are still talking about at Luckey, Ohio, the site we are in active remediation right now. Those are the two prior methods that we have been using to make sure it does not migrate offsite. I don't know if you want to elaborate on that.

No, you've got it. That is exactly right.

We've got a major remediation going on in Luckey, Ohio, which is right now, the largest active remediation in the country that is ongoing. So every single day, is out on site. He just came from the site today. So we are learning things every single
day and monitoring tens of thousands, hundreds of thousands of data points of monitoring associated with that site.

We have air monitors that surround the entire site should anything migrate off. Every single load that is transported off there is inspected before it goes off. Then there is a very thorough water down process, then that water is treated.

So it is not watered down for dust abatement, and then the water migrates off the site. The water is collected and treated onsite as well, that is a requirement of the contract. That is the primary method that we use to ensure nothing migrates off the site and to ensure the health and safety of the community.

I think that covered the questions.

did you want to elaborate? He's onsite, so he's the guy.

We have work zone air monitors which monitor the work zone, immediate work zone, there are three other work zone monitors; Allen's workers monitor that, then there are perimeters, so there are actually three layers of protection.
The idea is to catch it before it leaves the work zone before it gets to the perimeter so it never leaves the site. Like the Commander said, we've collected tens of thousands of samples out there since we have been out there. We want to make sure that we have multiple layers of protection so it doesn't get to the to perimeter.

We want to do our engineering controls before it hits the perimeter. For the Luckey site we monitor for radionuclides and lead beryllium. The site will monitor radionuclides that leave the suspended meters to make sure to keep the dust levels low.

During our deconstruction, were those monitors used?

Yes, we did the same thing at G1. We had the work zone --

Same process?

Yes, same process.

Thank you.

Cuyahoga River Restoration formerly known as the RAP, for Remedial Action Plan. Thank you for finally getting to this and moving it ahead. So
the number one question is, when the money is available, how long will it take? I'm sorry, I didn't hear anything.

So the question, to clarify, how long will it take to get the money?

No. Once you get the money, how long will it take to do, assuming Alternative 3?

So assuming Alternative 3 and once the money is available as outlined in the slide for each unit --

Two and a half years for Operable Unit 1 and about one and a half years for Operable Unit 2.

Simultaneously, not concurrently?

I mean, it depends on the funding levels. It depends on the work plan as we work it. It is possible simultaneously.

How many people are in line before we get in line asking for the money to implement? Right now, how many people are in the line?

I think you are
talking about the FUSRAP Program in general.

[Name]: Yes.

[Name]: Our Program Manager, Bill Kowalewski. He can probably speak to the sequencing of that and the funding.

[Name]: So the first question was how many sites are already in the remedial action process? Right now there are 13 sites that have already made it through the Record of Decision stage. So they are either being cleaned up, they've been cleaned up and are at the tail end of being transferred back to the Department of Energy, or they are waiting for funds.

Presently there are two sites on hold waiting for funds. In fact, there is not enough money in the national program to do all sites simultaneously. The program has ranged between 100 and $150 million a year. That is for 23 sites nationwide. 85 percent of those funds we designate for cleanup, the balance of 15 percent is to do what we are doing tonight, the investigations, the decision documents.

So if you figure on average $125 million a year is about what the national
program has to work with. The estimated value of all the cleanups at this stage is over $2 billion for the nation. So I cannot give you an answer tonight as to when we will see the money to start the Harshaw site.

We get our moneys appropriated by Congress on an annual basis. So we know what we have this year, fiscal year '19, which ends at the end of September. We don't know yet what we'll have for next year, and that is just the facts of life. We are trying to keep these projects moving, keep them alive.

We watch Congress and we see what they are going to appropriate and try to forecast as best we can. So with the ROD being assigned in FY20, we do have to get to that stage. Once the ROD is signed and we have a firm decision, we do not know when we'll start.

Maybe that answered your question; maybe not.

But then the question is, can other funds from outside sources be put into such a project, or is it absolutely limited only to the designated FUSRAP funds in your system?
Presently our authority to clean up the site is limited to what Congress authorizes in FUSRAP. I'll be honest, if somebody were to propose that be supplemented from other sources, we would have to take that homework assignment back and talk to our attorneys, talk to Congress to see if that could work. I'm not saying no, but we have never done that presently on a FUSRAP site in the national program.

So I think we are just -- I see one more question and then we are going to wrap up after that. For the record, of course, there are other formats.

Two part question: One, are there any underground fires anywhere on the site? And two, what measures do you have in place for fire prevention or emergency response in case of an explosion event?

I can't speak to underground fires, so I'm going to listen to my team. Have we had any history of underground fires on this site? We do not know of any history of any underground fires and there are none that are currently.
do you want to speak to urgency protocol onsite if there were an explosion? Based off our experience with Luckey and what we typically do.

What we do when we get on site, we have meetings with the local first responders. At the Luckey site we did that when we initially went out there. Then we have quarterly meetings with first responders to keep them apprised of what we are doing, what current conditions are.

We have procedures in place. We have a team, that is on the contractors, they do the initial response, evacuation, and we are in close communication with all of the first responders, fire departments, local police. We did that also at -- when we took down Building G1, we worked with the local fire department and the police out there.

I always check 911 on my cellphone to make sure it works. You know, let them know it is not an emergency, but you want to know who you are going to get. So we do close coordination with the local first responders, fire departments, EMS.
When we are doing work out there, we also have fire watch. We have somebody standing by, their job is -- if we are doing cutting or anything that creates heat or sparks, we make sure we've got somebody there watching it until the activity is done. We've never had that problem on our sites and we hope we never have that, but we are prepared if we do.

I can speak at the leadership level like I met with the Wood County Commissioner of Health and we worked through and made sure he was comfortable with the procedure that was in place. And this is speaking to the Luckey site. We would do the same here.

I want to say thank you. [ ], did you have something?

One last point, if there is a concern about beryllium or the remaining uranium being explosive, that is not the case.

Is there signage on the gates or fences now? Last time I drove by, I didn't see any signage.

[ ]: I believe on the fence for the Chevron property where the
contamination was for Building G1, there is because there was some contamination inside the fence line. So there is signage there, but from what I remember from the BASF property fence line, I don't think there is.

My question is: Shouldn't there be?

It would be the property owner's responsibility to put the signage up. We don't see any risk there on the BASF perimeter, it was more Building G1 because there is some contamination there. There's some contamination on the concrete slab. We don't want to open up what's underneath until we are ready to remediate it.

From the standpoint of the BASF fence line, we don't see any issues at that point. I think there are some no trespassing signs on the fence line, but nothing about radioactive contamination, but there is on the -- at least there was when we left -- on the Chevron property fence line because there is some fixed contamination there that we wouldn't want people to be in contact with.

Why did you come
off of Jennings onto Harvard? I haven't seen anything, is there something?

Just no trespassing. We have a guard and a perimeter security system.

Thank you. That was my next question.

This really concludes the formal questions for the public meeting tonight. I will reiterate, thank you for providing the comments you did, they will be factored into the final decision for the remedial action at the Harshaw Chemical site.

Remember, there are other ways to make sure we get your comments formally for the record. Write them out and leave them with us tonight, you can do it that way. You can mail them to the address listed up there, or provide an e-mail and send them via e-mail.

Please make sure you get those to us by the end of the day, or essentially postmarked by the end of the day on the 14th of May. And that will become part of the official record and that will be held at the District of Buffalo initially. Thank you for your comments. Thanks
for investing your time and energy.

(Thereupon, the proceedings were concluded at 8:41 o'clock p.m.)

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CERTIFICATE

STATE OF OHIO, )
) SS:
SUMMIT COUNTY, )

I, [Redacted], a Stenographic Reporter
and Notary Public within and for the State of
Ohio, duly commissioned and qualified, do hereby
certify that these proceedings were taken by me
and reduced to Stenotypy, afterwards prepared
and produced by means of Computer-Aided
Transcription and that the foregoing is a true
and correct transcription of the proceedings so
taken as aforesaid.

I do further certify that these proceedings
were taken at the time and place in the
foregoing caption specified.

I do further certify that I am not a
relative, employee of or attorney for any party
or counsel, or otherwise financially interested
in this action.

I do further certify that I am not, nor is
the court reporting firm with which I am
affiliated, under a contract as defined in Civil
Rule 28(D).

IN WITNESS WHEREOF, I have hereunto set my
hand and affixed my seal of office at Akron,
Ohio, on this Replace day of Replace, 2018.

[Redacted]

Reporter and Notary Public in
and for the State of Ohio.


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