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Buffalo District  
1776 Niagara Street  
Buffalo, New York 14207-3199

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In the Matter of: +

EA ENGINEERING SCIENCE AND +  
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FORMER LAKE ONTARIO ORDNANCE +  
WORKS (LOOW) PHASE III UNDERGROUND  
UTILITIES REMEDIAL INVESTIGATION +  
(UURI) AND HUMAN HEALTH AND  
ECOLOGICAL RISK ASSESSMENT +  
RESULTS WORKSHOP

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Youngstown, New York 14174 on June 24, 2009 at 6:00 p.m.  
pursuant to notice.

PRESENTATION BY: SANDY STAIGERWALD, EA ENGINEERING

CYNTHIA CHEATWOOD EA ENGINEERING

MICHELLE RHODES (Acting Program Manager)

ASSISTING: ARLEEN KREUSCH, OUTREACH PROGRAM SPECIALIST

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### P R O C E E D I N G S

MS. ARLEEN KREUSCH: Ladies and gentlemen, if could take your seats, please. Well, I guess I should say, before you sit down, if you don't have a red folder you're going to need one so make sure that you do have a red folder.

Okay. I'm just going to go over a few logistics before we get started. My name is Arleen Kreusch. I'm the outreach specialist for both Niagara Falls Storage Site and LOOW, and if there is an emergency there is the exit you came in or there's exits back here on both sides of the room if you need to get out of the room quickly. The restrooms are on that side of the wall and that's it for logistics.

The folders that you have have all kinds of important information in them. There is also a comment card in there. Please make sure that if you have any comments about either things at the meeting or the way the meetings are set up that you let us have your

comment card at the end of the meeting. And if that's okay, we will start. I would like to introduce Michele Rhodes. She is the acting program manager for both the Niagara Falls Storage Site and the Lake Ontario Ordnance Works. Michele.

MS. MICHELE RHODES: All right. Can everybody hear me? Okay. Arleen forgot to mention, the best thing about it is the cookies and the coffee are in back as well.

Welcome and thank you for attending the third Niagara Falls Storage Site and Lake Ontario Ordnance Works public workshop of 2009. My name is Michele Rhodes, and as Arleen mentioned, I am the acting Niagara Falls Storage Site and LOOW program manager. Our next public workshop is tentatively scheduled for Wednesday, December 2<sup>nd</sup>.

Tonight we will present an overview of chemical findings and associated risk from the LOOW Underground Utility Remedial Investigation Report and introduce the Sites Management Action Plan or the MAP.

Immediately after we will discuss preliminary radiological findings associated with the sampling of

the LOOW Underground Utilities and provide a brief update on the Niagara Falls Storage Site Remedial Investigation Report Addendum.

As Arleen mentioned, there's packets, the red packets. They actually contain handout for tonight's presentation along with some fact sheets.

So if you haven't received them, please do so. Following the 45-minute presentation you'll have, there will be a 30-minute poster session and this will be located in the back of the screen. You will have the opportunity to talk one on one with a Niagara Falls Storage Site and LOOW team. We also have hard copies tonight of the Niagara Falls -- excuse me, the Lake Ontario Ordnance Works Underground Utilities Remedial Investigation Report and the associated risk assessments in back for your reference.

We will reconvene here at 7:15 and we will conduct a 90-minute roundtable discussion. Before we begin tonight I'd like to introduce some of the Niagara Falls Storage Site and LOOW team members that are here tonight, and if you could please stand as you're introduced. Mick Senus is the acting LOOW project

manager. Jeff Hall is the LOOW project engineer.

Andrew Lenox is the acting Niagara Falls Storage Site project engineer. Dr. Karen Keil is the Niagara Falls Storage Site risk assessor. Liza Finley is the LOOW risk assessor. Bill Frederick is the Niagara Falls Storage Site hydrogeologist and the environmental project management team leader. Hank Spector is the Niagara Falls Storage Site health physicist. I don't know if David Frothingham will be attending shortly and he's the environmental engineering team leader.

Bill Kowalewski is the special projects branch chief.

You met Arleen Kreusch. She is our outreach specialist in back. Bruce Sanders, he is our chief of public affairs in the back. Tonight also with us we have Dave Kulikowski and Hallie Sarazin. They are from SIC. They are the Niagara Falls Storage Site Remedial Investigation Feasibility Study prime contractors. And is Don DeMarco here? Don may be attending tonight. He's with Hydrogeologic and they're our modeling contractor for Niagara Falls.

Additionally tonight we have representatives for the Department of Energy to address any questions

you may have on the DOE FUSRAP vicinity properties.

Now, these are the DOE investigated remediated and independently verified clean properties that were conducted in the mid 80s and were subsequently closed under FUSRAP. So if you could please stand as you're introduced. Mike Widdup. Bob Darr. Joey Gillespie.

And do we have Jeff Tack here tonight? Okay. Chris Clayton from the Department of Energy legacy management indicated that he does plan to attend the December 2<sup>nd</sup> workshop. I'd like to now introduce Sandy Staigerwald and Cynthia Cheatwood. They're with EA Engineering Science and Technology. They'll begin tonight's presentation.

MS. SANDY STAIGERWALD: Welcome, everybody.

Can everyone hear me okay? All right. Great. Tonight what we'd like to do is actually present an overview of the Phase III Remedial Investigation results. The Phase I and Phase II and Remedial Investigation addressed the former Lake Ontario Ordnance Works and other Department of Defense facilities, specific areas of use and manufacturing areas, whereas the Phase III addressed the underground

utilities that were constructed to support those facilities.

We'd also like to present the results of the Human Health and Ecological Risk Assessments, and this was of selected exposure units, and we'll talk about what an exposure unit is a little later in the presentation. Can't hear? Any better? A little bit better. No feedback.

MALE VOICE: Why don't you get a little closer to the mike?

MS. SANDY STAIGERWALD: Better? Okay. Great. Thank you. And we'll explain a little bit of what the exposure units are but basically they're different areas that were combined because of potential exposure. And then we'll also introduce and present an overview of the LOOW Management Action Plan.

Tonight's workshop consists of four different agenda items. The first is this presentation. Then we'll have the update from the Niagara Falls Storage Site team, and then we'll have a poster break out here in the back set up in different stations with different information and we'll also be



available for any questions and answers, question and answer session back there. And then we'll re-adjourn in this area for the roundtable discussion.

And if anybody does have any problem hearing, there are a bunch of seats here, so feel free to come on up if you're uncomfortable standing or if you want to sit down.

This is just an overview of Lake Ontario Ordnance Works. You can see the boundary here. It's actually located just to the east of where we are right now. It's bounded by Creek Road on the west and by Porter Center Road on the east. There were several other Department of Defense facilities that operated on the former Lake Ontario Ordnance Works including the Air Force Plant 68 and the Navy Interim Production Pilot Plant, both of which produced borane fuels as well as a NIKE base. The Ordnance Works itself produced TNT, was constructed in the early 40s and then closed in 1942, and there were some other facilities that aren't shown on this figure that were also constructed subsequent to the closing of LOOW.

Some of the areas that you see here

highlighted in green are areas that were investigated or assessed during some history search and Phase I Remedial Investigation and then there were some additional areas that were carried through into the RI, as you can see. Go ahead.

These darker brown areas right up in this area were carried into Phase II of the RI, Remedial Investigation. Today we're going to be concentrating on the underground utility lines, which are these different colored lines that you see in the center here.

These next two slides present just a very broad overview of the Phase I and Phase II Remedial Investigation. We have included these because the risk assessment which will be discussed later incorporates these results as well. What you see here are the soil sampling locations depicted by these small squares as well as the groundwater sampling locations depicted by a small triangle. This is not all-inclusive. There were some additional samples that were collected that aren't shown on here, specifically samples along the 30-inch outfall line which originated here along the wastewater treatment

plant and extended to the west off of this figure as well as surface water and sediment samples and some background sample locations.

What you can see from this is that we used a systematic sampling approach where we spaced our samples a certain distance apart in order to cover a large area, and also we targeted specific locations that we thought might have a higher chance of having impact and those were called bias sampling locations. You can go ahead.

During the Phase II Investigation we targeted those areas that we investigated during the Phase I that actually had chemicals that were reported in concentrations above risk based screening levels. We used the same sampling approach in that we used a systematic sampling approach and then also biased some locations towards areas that we knew were suspected of impact. And again, you can see here the different symbols for soil and groundwater. The difference between the white versus the color is again the color indicates that there were some constituents that were reported above risk based screening levels.

This figure depicts the former LOOW. You can see that with the brown boundary. And also the area that we refer to as the developed area here in the tan. That's the area where most of manufacturing took place. We don't have any evidence of there being any manufacturing facilities in this portion of LOOW and as you can see, the majority of the underground utility lines from these colored lines, that are depicted with these color lines, were within that developed area.

There are two main exceptions to that. One is the 40-inch diameter fresh water intake line, which originated at the Niagara River and traversed to the east to a former fresh water treatment plant that was on Lake Ontario Ordnance Works and the second is a waste discharge line that originated at the wastewater treatment plant, traversed to the west and discharged at the Niagara River. And we refer to that as the 30-inch diameter outfall line.

This is actually kind of a zoomed-in view of that former slide where you can actually see some of the utility lines a little bit more closely. You

also see some shading here, some green shading. Thank you. And the shading depicts those areas that were actually included in the Phase III Investigation. Not all the entire extent of the lines were included in the investigation, namely because they were included in other investigations such as the lines on Niagara Falls Storage Site in this area or they were in areas that are heavily used by the current property owner so they were not included in the investigation.

The line types that you see here include sanitary sewer lines and acid waste lines that were constructed for LOOW as well as additional lines in this area here that were constructed for Air Force Plant 68, lines that we found at the NIKE base, we didn't have a lot of historical evidence of that but we investigated those areas. And also lines associated with the former Navy Interim Production Pilot Plant.

We actually conducted the investigation in two tiers, the first of which we refer to as the non-intrusive investigation, and the purpose of that tier of the approach was to actually locate the lines. So the way did that is through historical research.

We found some old as-builts of the old Air Force Plant 68 and also of Lake Ontario Ordnance Works. We did site reconnaissance. We also did some geophysical surveys, and then the other, the last thing that we did was a camera survey. The purpose of that was actually to locate on the interior lines features such as this, which is sludge that was located in the lines, wastewater, that was also located in some lines, and then also joints or cracks in some instances where it may have leached into the subsurface soil. We also looked for secondary lines that may not have been on some of the historical drawings, as you can see here, so that we can target those for investigation as well.

The second portion of the investigation was the intrusive portion and the purpose of that really was just to gain access to the lines in order to sample.

We wanted to sample the wastewater, the sludge, and also the subsurface soil. We also wanted to see if there were any unknown lines, if we encountered anything that wasn't on the historical drawings, and indeed we did find some lines that we couldn't identify.

We also wanted to assess whether there was any bedding

material beneath the lines, any kind of limestone screenings that might act as a preferential pathway if contaminants did get into that.

This is a summary of, just a pictorial of all the different locations and excavations that were performed for the Phase III Remedial Investigation.

We targeted every type of process and waste line that was out on Lake Ontario Ordnance Works except for those lines that have already undergone interim remedial action, which include the TNT line here, TNT waste line, as well as some of the chemical waste lines that were in this area right here. But all other lines were targeted. We collected sludge, wastewater where it was present, subsurface soil, surface soil where some of these lines actually discharged to surface water drainages, as well as one surface water sediment sample where the 30-inch outfall line traversed the southwest drainage ditch.

Some of the results, the underground lines basically for the most part sanitary sewer acid and chemical wastes discharge to the former LOOW wastewater treatment plant. Storm water and wastewater lines

generally discharge to surface water drainages.

Larger diameter pipes such as the 30-inch outfall line, the acid waste line and the sanitary sewer lines were constructed of clay that were encased in concrete, which actually acted to limit some of the migration that may have occurred out of those lines to the soil.

We also saw that wastewater lines were generally constructed of steel and transite. Smaller diameter, it varied. Various different materials were used for those. Depths for the lines ranged anywhere from near surface to 17 feet below ground. The reason for that is most of these lines were gravity feed to the wastewater treatment plant, so as we approached the wastewater treatment plant the line depth increased.

And also we did find bedding material mostly beneath the lines that were associated with Air Force Plant 68. However, there was one line at the NIKE base that also had an underlayment.

And we found the bedding material in about 54 of the excavations that we performed and in 17 of those there was actually liquid that was trapped in that material, so we actually collected samples of that



as well, of that liquid.

This will show generally the areas where we had the highest impact or the greatest variety of chemicals that were reported in the investigation results. You'll see the first one is the Air Force Plant 68 southern process areas. Those were highly impacted as well as the Nitration House area, the LOOW wastewater treatment plant and also the northern branch of the sanitary sewer and acid waste line. Lines that showed a little less impact included the northern portion of Air Force Plant 68 which is right up in here, as well as the NIKE base line and the LOOW's, the southern branches of the sanitary sewer and acid waste lines in this area here. And the lines that showed actually the least amount of impact were stormwater and the 30 inch diameter outfall line which traverse to the west of the figure here.

Just as a breakdown by line type of what we, the chemicals that were reported in the acid and sanitary sewer lines, we saw sludge and wastewater impacted with polychlorinated biphenyls, and I'll refer to those as PCBs as we move forward through the

presentation. Also pesticides, semi-volatile organic compounds and metals. What we also noticed is that with the acid waste and sanitary sewer lines there was some impact to soil beneath the lines in the Air Force Plant 68 area. In the unknown line types, those lines that we couldn't identify what they were actually used for when the facilities were operating, we found that wastewater was impacted with volatile organic compounds and metals, and that soil was impacted with polychlorinated biphenyls, and surprisingly very little impact to sludge in those lines.

In the wastewater lines, we found wastewater and soil impacted with polychlorinated biphenyls and also sludge impacted with metals and PAHs. In some of the surface features there's some pits and vaults and sumps that are actually located out on site. There was a variety of chemicals but the one reported in most of those and in highest concentrations were the polynuclear aromatic hydrocarbons.

This is presented mostly as an example of the type of information that you can find if you do want to take a look at the Remedial Investigation Report

that we have in the back here, and that is the sampling locations within each of the different areas that we addressed. On this figure in particular you'll see that the square represents soil sampling locations.

The small triangle represents wastewater sampling locations, and then the small circles represent sludge.

If you see color in any of these, meaning like the little purple here, or the green, that does indicate that there was a constituent that was reported in concentrations above the screening levels.

We've presented this one as an example because the 30 inch outfall line does traverse several properties including the school property, so we wanted to include that as an example. One thing that we did want to point out is that although an exceedance of the risk based screening level may be a concern, it doesn't necessarily mean that there is a risk associated with that line. The way we evaluate that is by a site specific risk assessment.

And now I want to re-introduce Cynthia, and she'll discuss a little bit about the methodologies used and the results of the risk assessment that we

did for the underground utilities, and including Phase I and Phase II results.

MS. CYNTHIA CHEATWOOD: Okay. First we're going to start out with a quick overview of the risk assessment process, and within the risk assessment we start with a hazard assessment, which essentially determines, does contamination exist.

From this we move on to an exposure assessment where we determine, is anyone exposed. And that includes both currently and in potential future. Once we determine that, we try to determine how often, how long and how much. From that we move forward to a toxicity assessment, which essentially determined how harmful are the chemicals identified in the hazard assessment process.

From that we move forward to the risk characterization, which is basically a compilation of these top three steps, and that pretty much answers, how much risk is there. And for the LOOW risk assessment I just want to point out that we evaluated both ecological and human health.

Now, before we discuss the LOOW risk

assessment we're going to discuss the risk exposure units, and what is an exposure unit. To facilitate the risk assessment similar areas were combined into exposure units, and this helped us to better model the actual exposure areas for the potential receptors.

And the areas were combined based on proximity, contaminant type and sources, site use history, similar terrain/vegetation and similar industrial processes.

And currently 10 separate exposure units have been defined within the LOOW site.

And this is a general layout of the exposure units within their current property owners, and what we have here is over in this legend here, this is the areas of concern investigated in the remedial investigations and these are the Exposure Units that are associated with these areas of concern. So for instance, we have exposure units 6 and 7 here, located with the Town of Lewiston property, and Exposure Unit 6 represents the wastewater treatment plant vicinity shops and Exposure Unit 7 represents the wastewater treatment plant. This was not assessed for risk at this time. However, it will be assessed for risk in

the Phase IV Remedial Investigation which was discussed in the March workshop.

Now, I do want to stress certain conditions that must be met to result in a risk. And the following must occur to have a complete exposure pathway. Essentially you must have first a chemical release, a route of exposure, and a potential receptor. So essentially the receptor must have the ability to contact a chemical release and incomplete exposure pathways do not result in exposure and were not included in the risk assessment, basically meaning they do not pose a risk at this time.

Now, this is an illustration of complete exposure pathways. And I do want to point out that this is not the LOOW site specific in this risk assessment, it's just presented for illustration. It is available at handout number 7 within your packet.

And what we have here are the three main elements of a complete exposure pathway. We have a chemical release maybe to the soil. We have identified some potential receptors here and they have potential exposure either through soil contact, through

ingestion and/or skin absorption.

This is one of the LOOW site specific conceptual site models. I'm not going to go in detail right now about this. It is available as handouts 8 and 9. That's both the human health and the ecological conceptual site model. What I do want to point out is, across the top here are the potential receptors evaluated in the human health risk assessment including potential exposure pathways here, and an X within the box basically represents a complete exposure pathway that we identified in the risk assessment.

Now, the risk assessment evaluates both a carcinogenic and a non-carcinogenic result, and we're going to start with the carcinogenic results. And they're evaluated as follows. We start with the probability that a United States resident will develop cancer in his or lifetime is basically 50% for men and 33% for women, and this is what we generally consider your baseline risk as a US resident. From that the LOOW risk assessment results are compared to the US EPA established acceptable carcinogenic risk range, and that's identified here in the Code of Federal

Regulations that could easily be found or looked up, and this is standardized across the United States.

Now, the LOOW risk assessment, the carcinogenic results are considered a potential concern if there is a greater than a 0.01% increased incidents of cancer in a potential receptor. What this basically means is if we identify your increased risk of 50.01% or greater, that's when we would identify a potential concern for a receptor exposure to the actual site.

Now, non-carcinogenic risks are a little more straightforward and they're considered a potential concern if the chemical either intake or the concentration is greater than a US EPA derived level for no adverse effects.

Now, to get these risk results, we have to make generalized assumptions, and they're based upon potential exposures. It does not mean there's an actual exposure at this time. And they're also based on long term contact. We evaluate very conservative exposures, and we have an example here, a residential exposure assumes a continuous ingestion and contact



with soil for 350 days a year for 30 years. What we basically assume is that a residential house will be built right on the exposure area evaluated.

Now, for additional information we have the LOOW risk assessment fact sheet, and the website is found here, and it's also available as handout number 2 in your packet.

Here is a general overview of the results of the risk assessment and just for your reference the areas that concern exposure units are shown here. Now, for the screening level, ecological risk assessment, it was concluded that exposure units 3, 4, 5 and 6 present negligible hazard to ecological receptors. Exposure units 1, 2 and 8 have potential hazards to soil and vertebrates. And exposure unit 8 also presents potential hazards to plant, bird and mammal population.

Now, the human health risk assessment concluded that exposure units 2, 5, 6, 9 and the 30 inch outfall do not pose any human health concerns.

Exposure units 1, 3, 4, 8 and 10 do have potential human health concerns for various receptors and

pathways, and the primary chemicals of potential concern are PCBs, PAHs, explosives, metals, pesticides, and volatile organic compounds or otherwise known as VOCs. And also handouts 10 through 18 contain summary results for both ecological and human health risk assessments.

Now we'll discuss a little more detail the areas identified earlier, and these are broken down by the current property owner. As you see here, these on this slide are within the CWM owned property. You probably can't see it but there is a figure up here with the locations again that were shown earlier. Within exposure unit -- oh, I do want to point out within the CWM property, a resident was not evaluated, because of CWM's perpetual care agreement, it's basically not considered a viable future use.

The human health risk assessment determined potential concern for various worker exposures to soil and groundwater and sludge and wastewater within the underground utilities, and the primary chemicals of potential concern are PCBs and VOCs, and the ecological risk assessment determined a concern for soil and

vertebrates exposure to metals.

Within exposure unit 2, there is only a concern for the ecological and that was soil and vertebrate exposure to metals and various pellets found within the, during the remedial investigation.

Exposure unit 3 showed a concern for the human health risk assessment, the adolescent trespasser and construction worker exposure to sludge within an underground pipeline.

Exposure unit 4 showed a concern for a commercial worker inhalation of VOCs and groundwater, and this basically assumes that a commercial building would be built within this exposure unit.

And then finally within the CWM property, exposure unit 10 showed a concern for construction worker exposure to sludge and wastewater through the various types of underground utilities with primary chemicals of potential concern including PCBs, PAHs, pesticides and VOCs.

Within the Somerset Group property, only exposure unit 10 showed a concern, and that was the construction worker exposure to PAHs in sludge and dry

wells, and a child resident exposure to arsenic and PCBs in total soil around the unknown lines. And I do want to point out for the child resident that that assumes that a residence would be placed within this exposure unit.

Within the Town of Lewiston property, once again only exposure unit 10, construction worker and a child resident, exposure to PAHs and PCBs in sludge within the acid sewer line and the construction worker exposure to PAHs in sludge within the dry wells.

And finally on the Occidental owned property exposure unit 8, both the human health risk assessment and the screening level ecological risk assessment showed a concern for receptor exposures to various metals and explosives in the soil.

Now, the next steps for the LOOW site, the Phase IV of the ongoing Remedial Investigation, basically the former LOOW wastewater treatment plant area will be completed. This was discussed earlier that this is exposure unit 7. Areas identified in the risk assessment as presenting potential risk concerns will be evaluated further in a feasibility study.

Within that, both applicable and relevant and appropriate requirements otherwise known as ARARs, and risk-based clean-up values will be calculated and these values will basically guide any remedial efforts considered for the areas of concern.

Now, the Corps is preparing a comprehensive planning document which Sandy will now introduce.

MS. SANDY STAIGERWALD: All right. What Cynthia is referring to is called the Management Action Plan and this is being developed in order to organize and streamline the environmental response that is taking place on the 550 parcels that comprise the 7500 acre Lake Ontario Ordnance Works. It's going to be a comprehensive planning document that will evaluate and present all the findings, conclusions and also the framework for conducting the environmental response.

It will not be a replacement document for any documents that are required under the Comprehensive Environmental Response Compensation and Liability Act, otherwise known as CERCLA, so it doesn't replace a ROD, you know, Record of Decision or a feasibility study.

It's really a planning tool that will be used to

present the strategy moving forward.

It's going to be, it's going to consist of three different parts. Part 1 is actually referred to as the Management Action Plan and that will present the purpose and the sources of information and also the regulatory authority and responsibilities, and an overall summary of the status of all the different parcels that comprise LOOW.

The other thing that the Management Action Plan will introduce is the concept of a parcel group.

A parcel group is important because it's actually the unit that the environmental response will be organized for. So a parcel group has been defined as either a single parcel or combined group of parcels that were combined based on similar characteristics with regard to former Department of Defense site use. Those characteristics are presented in the Management Action Plan and they include such things as whether or not they were actually on or within that developed area or they were outside the developed area or perhaps they were along the 30 inch outfall line or some drainages.

There is a hierarchy that's presented in the

Management Action Plan and that hierarchy was used to assign the parcels to the parcel groups. We came up with 33 different parcel groupings and each one of those is presented in a property-specific Management Action Plan. And those property-specific Management Action Plans comprise part 2 of the overall Management Action Plan. Those property-specific Management Action Plans will actually present the findings that are specific to the parcels in that group so if you know where that parcel is or if you're interested in a certain parcel or parcel group you can go to that Management Action Plan. It will have all the findings, the current status of the environmental response, whether or not it's currently undergoing investigation or requires additional investigation and the status and strategy to move forward.

Then we'll also be preparing a responsiveness summary after release of the initial Management Action Plan that will be a compilation of all the comments and responses to those comments.

I do want to note that the reports that we discuss this evening are available at the Corps

District here in Buffalo as well as the local libraries.

There's a list in the Youngstown libraries and we also have a copy here for reference if anybody wants to look through those.

At this point I'd like to turn it back over to Michele. Is she around? Perfect. Sorry, I didn't see you. She'll talk a little bit about the status of Niagara Falls Storage Site.

MS. MICHELE RHODES: All right. Thank you, Sandy. The next portion of the presentation will discuss the radiological sampling of the LOOW Underground Utilities both north and west of the Niagara Falls Storage Site and will provide a brief update on the Niagara Falls Storage Site Remedial Investigation Report Addendum work.

The Niagara Falls Storage Site Remedial Investigation Report was released in December of 2007.

It indicated that radiological contamination existed in both wastewater and sediment within the sanitary sewer and acid waste lines on the Niagara Falls Storage Site property. Because these lines lead to the wastewater treatment plant and subsequently the 30 inch



outfall, both of which were off the Niagara Falls Storage Site property, sampling was undertaken under the Formerly Utilized Sites Remedial Action Program or FUSRAP to determine if radiological contamination had spread from the Niagara Falls Storage Site property off site.

During this investigation those lines were sealed to the northern portion of the Niagara Falls Storage Site border to prevent future off-site movement of contaminants currently within the lines at Niagara Falls Storage Site. During the LOOW Underground Utilities Remedial Investigation work, 60 samples were collected under FUSRAP in tandem with the LOOW investigation for radiological analysis. Sediment and wastewater within the pipes along with the surrounding soil were analyzed at a minimum for uranium, radium and thorium. The full extent of the parameters analyzed includes actinium, bismuth, cesium, cobalt, lead, potassium, protactinium and thallium. No initial plutonium or strontium analysis was conducted since these were not listed as radiological contaminants in the Niagara Falls Storage

Site underground lines.

A fact sheet summarizing this effort along with analytical results were released in an October 2007 fact sheet and that fact sheet is available in your handout packet tonight. It's on the left hand side.

To determine the potential spread of radiological contaminants through the underground utility lines analytical results were compared with background values established in the Niagara Falls Storage Site Remedial Investigation Report. In other words, wastewater samples were screened against -- were compared to background surface water, soil compared to soil background and surface water compared to surface water. Samples exceeding these background levels indicate potential radiological impacted areas.

Next slide.

This slide highlights conclusions from the FUSRAP sampling of the former LOOW underground utility lines north and west of the Niagara Falls Storage Site property. In addition to sampling, inspection of the bedding material surrounding these lines was conducted to determine if the construction of the lines would

provide a means for potential contaminant movement off-site. In some cases for example, if a subsurface pipeline leaked contaminants and the pipe was surrounded by gravel, in essence contaminants could move in a channel along the line at a faster rate than the clay or basically the surrounding soils would normally allow. The good news is that a majority of the lines were concrete encased and therefore not going to encourage contaminant movement.

When radiological results from the LOOW underground utility lines were compared to background or the level of radioactivity one would expect to find if not impacted by the Manhattan Engineer District activities, there were exceedances of these levels that indicate a need for further evaluation of this data in the Niagara Falls Storage Site Remedial Investigation Report Addendum. These results in excess of background, however, do not necessarily indicate a potential health risk. They would have to undergo a risk assessment.

The next slides will highlight radiological sample locations along with preliminary background screening results for the LOOW underground utility

lines north of the Niagara Falls Storage Site which are the former acid waste and sanitary sewer lines located on the CWM property, associated former LOOW wastewater treatment plant on the Town of Lewiston property and the 30 inch outfall.

This figure shows sample locations and which radiological results from the sanitary sewer and acid waste pipelines extending from the Niagara Falls Storage Site north to the CWM property and west to the Town of Lewiston property exceeded background. And if you see here the sort of mauve line is the sanitary sewer line and the green line here is the acid waste line. As mentioned before, you could see the Niagara Falls Storage Site northern property boundary, so these are gravity fed into the wastewater treatment plant into the 30 inch outfall.

This figure shows that radiological impacts from the former LOOW pipelines on the Niagara Falls Storage Site have extended off site to the north and west of the Niagara Falls Storage Site and these are indicated by the yellow boxes. Those show levels that are above background. Next slide.

Radiological results from the former LOOW  
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sanitary sewer and acid waste lines indicate that uranium is present in sludge and wastewater within these lines in excess of background. The exceedances of radiological background screening levels indicate a need for further evaluation and those will be addressed in the Remedial Investigation Report Addendum as part of a risk assessment and they don't necessarily in this case conclude a potential health risk.

This figure shows a radiological sampling undertaken at the LOOW wastewater treatment plant and locations which were above background, again as indicated by the yellow boxes. These boxes do not exceed background but were sampled.

Lines associated with wastewater treatment plant are typically from one to six feet deep and mainly encased in concrete again. The pipes are made from concrete, wood, and terra cotta clay. The wastewater treatment plant was identified as the most radiologically impacted area. This was not surprising since it was the purpose of the wastewater treatment plant to treat sludge and water that was extending from these lines originally. Next slide.

Radiological results from the former LOOW wastewater treatment plant indicate uranium, radium, thorium and cesium are present above background but not in wastewater. The exceedances of radiological background screening levels again need further evaluation in the Niagara Falls Storage Site Remedial Investigation Addendum as a risk assessment. Next slide.

This figure shows locations along the 30 inch outfall line that are selected for radiological sampling during the LOOW Underground Utilities Remedial Investigation. The 30 inch outfall line is about three to six feet deep from the wastewater treatment plant to the southwest drainage ditch and is composed of terra cotta pipe encased in concrete again. Radiological sampling was conducted in three locations along the line due to the limited presence of sludge and wastewater within this pipe. In addition, water sediment and soil within the southwest drainage ditch were sampled where the line intersected the 30 inch outfall. The figure shows that no background exceedances were detected along the 30 inch outfall line.

Again, just to show there was very limited presence, we sampled where we could and we were all within background limit, so that's the good news.

What's next for the Niagara Falls Storage Site is continued operations and maintenance and environmental monitoring to ensure protection of human health and the environment. In addition, the 2008 Technical Memorandum is being worked on now and the findings will be released by November. The available data to date is actually on our website to be viewed.

In December of 2007 the Corps of Engineers released the Remedial Investigation Report for the Niagara Falls Storage Site where 334 comments were received and reviewed by the technical team. Based upon these comments and also a data gap assessment, a scope of work was developed for a Remedial Investigation Report Addendum. This Addendum will address data gaps in these comments through additional historical documentation, additional evaluation of available data such as the underground utility line radiological analysis as well as additional field investigation. The additional field investigation will commence beginning this fall and into the winter

to better define specifically groundwater contamination on-site and the potential for its movement off-site.

The Niagara Falls Storage Site technical team is currently working to identify sample locations to achieve these project objectives and address these data gaps.

In addition, the Corps will issue a Feasibility Study Work Plan this calendar year that describes three operable units for the Niagara Falls Storage Site, the first being the interim waste containment structure, the second is what we call balance of plant or the site soils underground utilities and above ground structures and groundwater.

It introduces the concept of a Feasibility Study Technical Memorandum which, for each operable unit, which are FS deliverables that will be released to solicit information in various stages of the FS process.

Lastly, the Corps has received stimulus funds to demolish Building 401. The Corps is currently preparing the scope of work and plan to award the demolition contract in the March 2010 time frame.



There is a fact sheet located in the back on the left hand side of your packet for more information on that.

Next slide.

Again, in addition to the fact sheets available tonight, they're also located on our website.

The first is for the radiological sampling of underground utilities and the bottom is for the Remedial Investigation Report Addendum. And our contact information in case you have any additional questions after the meeting tonight.

So this concludes the update for the Niagara Falls Storage Site portion of the meeting. We'll now convene to the back of the screen where we --

MS. AMY WITRYOL: Michele, before we do, there are a lot of elected officials here this evening who may not be able to stay for the poster or breakout session or the roundtable discussion. So with your indulgence, I'd like to make a couple of comments for them before they go. Would that be okay?

I want to take just a couple of minutes to comment on the oversight of the LOOW by the New York

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State DEC and the Army Corps. As usual, tonight's agenda was set by the Army Corps Army Corps not in collaboration with stakeholders who collectively are the Corps' Restoration Advisory Board or RAB, as it's known. The RAB is recognized by virtually all stakeholders which include our municipalities, local academics, residents, Modern Corporation, Occidental, our school districts, the Niagara County Health Department, the New York State DEC and the US EPA. As you know, the New York State Attorney General believes the Corps' disbandment of the RAB in January of last year was unlawful. One stakeholder exception to endorsement of the RAB has been CWM Chemical Services, even though CWM attends certain RAB meetings.

As you know, CWM operates one of only 22 hazardous waste landfills left in the nation on property widely contaminated by these operations as well as from previous use by the Federal government. And both the New York State DEC siting plan and the US EPA have concluded the CWM facility is not needed to address state or national needs. Several months ago I heard rumors of a Department of Energy re-evaluation of the closed vicinity properties on the LOOW site. I spoke

with several Federal and State agencies who said they knew nothing and/or referred me around in circles. Then four weeks ago I asked Mr. Kowalewski, the project manager for the Army Corps, whether any person or stakeholder had requested the Corps or Department of Energy to investigate or perform work on the closed vicinity properties. Other than a comment about the central drainage ditch back in March from a resident, Mr. Kowalewski answered no, and added that he was aware that CWM conducted a gamma radiation survey of its property but he did not have the survey data. Apparently a severe case of amnesia had descended upon Mr. Kowalewski.

I already learned that CWM sent him at least two letters requesting radiological contamination on its property be removed by the Federal government. These letters included some data from its gamma walkover. In January of 2008 CWM wrote Mr. Kowalewski, quote, Fac Pond 8 is one area that does not appear to have discrete sources. The pond is in the footprint of the proposed RMU 2 (sic) landfill, end quote. Anyone concerned about the Niagara River, please take note that the interim storage for those discharges is

lined with elevated radioactive contamination put there by the landfill operations and not by the Federal government.

This January CWM letter also refers to sampling done by the DEC showing concentrations as high as 226,000 picocuries per gram, dramatically higher than the cleanup standard of 5 picocuries per gram established by the Army Corps for the Niagara Falls Storage Site, and gamma readings registered as high as 250,000 counts per minute while background for CWM was 7,000 counts per minute.

Adding insult to injury, eight months later the DEC told me that virtually nothing above 16,000 counts per minute was recorded by CWM. Apparently a severe case of amnesia had descended upon the DEC as well. There was likely more conversation and correspondence about CWM and none of it shared at the Corps' public meetings, which are always joined with a DEC presentation. The DEC has allowed CWM to store instead of analyze radioactive contamination on its site for many months if not years. That is nothing short of a coverup. Perhaps the DEC and CWM want us to think there is little contamination on the site

unless and until the Department of Energy agrees to pay for a cleanup. Why would CWM go to the trouble of asking the Federal government to clean up a small problem? The New York State DEC has made a mess of the LOOW site and remains obsessed with CWM concerns rather than the areas of greatest risk to the public.

We are not impressed that Mr. Johnson, seated to my right with CWM engineers on his right and his left elbow this evening, writes an occasional letter about a small fraction of the problems on the Lewiston property while spending the bulk of his time negotiating for the remediation of CWM. I will have more to say later about concealing information from the public, but if the Army Corps concealed CWM correspondence about Federal contamination on the LOOW from us for nearly two years until I stumbled over it several weeks ago, we should be concerned the Corps is somehow encouraging the Department of Energy to spend taxpayer dollars making way for RMU 2. I am assuming DEC project staff additionally has taken that position because their behavior has been more akin to a CWM consultant than to a regulator.

The DEC has failed to use its authority to  
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require CWM to clean up the mess they made of the radiological contamination while violating the New York State Department of Health excavation order for 20 years. This made contamination harder to find and remediate because of those violations and CWM has known about these problems for decades and has also placed obstacles in the way of Army Corps investigation on parts of three open vicinity properties.

Yesterday I promised the DEC I would endeavor to make clear to the public that the DEC does not require CWM to remove radiological contamination on its property unless CWM needs to move that contamination with a shovel to facilitate the import and burial of chemical waste. This approach captures perhaps 1% of radiological problems on CWM and in exchange we get more chemical contamination. What a deal for public safety.

Not one taxpayer dollar of Army Corps time should be devoted to cleaning up radiological contamination on CWM. I hope residents will ask our congresswoman and our US senators to ensure we do not subsidize CWM in any manner anymore. CWM can well

afford to use some of the \$10 million it sends back to the head office in Houston every year to clean up the mess they made and the New York State DEC should require them to do so without delay.

I have been asking for transparency and LOOW stakeholder interaction of both the New York State DEC and the Army Corps of Engineers for several years to no avail. You would think in a community that has almost double the rate of childhood cancer expected by the New York State Department of Health might be treated equally to the polluters. We are still waiting. And if you'd like to update us on CWM's April 2009 threat to sue the Federal government over cleaning up their mess later this evening, we'd be interested in hearing about it. I appreciate the Corps allowing me this time to remind them and fellow residents that when it comes to CWM the way the DEC and the Army Corps treat us has not changed.

Thank you, and I'd like to compliment again the Army Corps contractors for the excellent work that they do at the sites.

MS. RHODES: Thank you. Just one of the advantages of capturing things during the roundtable

discussion is, we could hear it, so if you wouldn't mind giving us a copy if you have it, so we could make sure it goes on public record.

DR. SPRY: May I make a comment?

MS. RHODES: Sure.

DR. SPRY: I'd like to make a comment on the fact that the speaker has pointed out that they have representation from all the local officials in this area. As a resident of this area and with a background of a Ph.D. in nuclear physics from the University of Rochester, I'd like to point out that the previous speaker does not represent my viewpoint and certainly does not represent my ideas of what should be done with the cleanup at the Lake Ontario Ordnance Works site.

I have no reason to agree in any way, shape or form with the comments previously made by the previous speaker. Thank you.

MS. MICHELE RHODES: Can you state your name.

DR. SPRY: Dr. W.J. Spry, S-P-R-Y, and I'll give you my address if you want.

MR. BAKER: No, that's fine. Thank you.

MS. MICHELE RHODES: Let's see. I guess we can convene in back for the poster session. The team



will be available for any additional questions you have. Again Department of Energy representatives will be here. We'll reconvene back here at 7:15 for a 90-minute roundtable discussion. Thank you.

(Recess taken for poster session)

#### ROUNDTABLE SESSION

MS. ARLEEN KREUSCH: Okay. I'd like to just start with a few operating principles for tonight's meeting. We have -- be courteous. Please turn off electronics. Let's listen respectfully, one person talking at a time. Raise your hand when you want to speak. Please state your name before commenting. It's important that the court recorder knows who you are. This goes for the Corps team and anyone else here that's here as a contractor. Please state what organization you're from and who you're representing. And please, let's give everyone a chance to comment and if there is anything that we can't address at tonight's meeting we will put it in the parking lot to address at a future meeting.

When you came in the door there was also a poster up that said we would be taking suggestions for

future agenda items on different meetings, and there's comment cards in your folders, so if you have any suggestions for us please write them on the comment cards and put them in the box before you leave. Is there anyone that has any other operating principles that they'd like to suggest for tonight's meeting? And is everybody okay with these? Okay. Then we will get started. I will be writing down action items tonight, if there's any action items that we have to get back to people on. And is there anyone that would like to start off with the first question? Oh, and Natalie is in the center. And if there is a slide that you have a particular comment on that was in the presentation if you tell her what slide number you're talking about she can bring it up for you. Supervisor Newlin.

SUPERVISOR NEWLIN: Fred Newlin, Town of Lewiston. I'd like to thank the contractors and the Army Corps of Engineers. They do the best to make a lot of this technical data consumable by us on a regular basis. I did learn something. I have a couple of questions.

First of all, I want to reiterate the Town's  
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immediate concern, putting aside the health concerns just for a moment, but I want to know if there was a time line yet on securing that property. We, with Louise Slaughter we got this grant to get some, about \$1.3 million in. I want to know and I think it would be good for the public, to know what the time line is for that. I want to reiterate my concern that the fencing off of the perimeter be moved to the head of the agenda there, just so we secure the perimeter first and then the work can take place. I think that will save everybody here a lot of headaches.

Then I had a second point on another matter, but could we address that one first, please.

MR. BILL KOWALEWSKI: I could take the first question. I'm Bill Kowalewski with the Corps of Engineers. I've worked closely with Supervisor Newlin and the Town of Lewiston and his staff on the issue of site security and the physical hazards at the Town's property. The update I have is that the House has I believe approved the \$1.3 million budget request that Congresswoman Slaughter has put in for this project, so it's through the first of really three budget wickets. The first is the House, the second is the

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Senate, the third is the Conference. And we'll be watching that as it move through Congress. There's no promise or any guarantee on the time frame, but if past Congressional budget process plays out, we're probably talking, you know, in the November-December time frame there will probably be some movement on that and for example, last year the Corps received its appropriation I believe in about the March time frame.

So if that happens and this project is approved, we'll certainly be in touch, Supervisor Newlin. And with regards to the fact that, if it does get approved and funded, we can certainly make the fencing, the gates, the site perimeter security a priority for the contractor.

SUPERVISOR NEWLIN: Okay. Thanks. I'd like you to keep that at the top of the list, if you could, please.

The second thing was, when we were going through the old underground utility lines, you mentioned the dichotomy of some of the lines being concrete encased and some being gravel encased. And we have experience running our own municipal lines that these gravel encased lines transmit laterally all sorts

of liquid. So, you know, they almost act as rivers or at least small streams. So I was wondering if at some future report if the Army Corps of Engineers could differentiate on these maps they have kindly provided us which one of these lines are gravel encased and which ones are concrete encased, and then put them in relations to the known toxic substances we have there.

So are the gravel encased lines, the ones that are more likely to transmit laterally, are they connected somehow to the more toxic parts of this site or are they closer to the concrete encased lines? Is that a reasonable request and you think it's something we could hammer out at some future presentation or offering from the Corps?

MS. SANDY STAIGERWALD: This is Sandy Staigerwald. I can't talk to like production of additional figures or anything like that but I can address the, where we did see some of this gravel that underlaid some of the lines -- some of the lines actually weren't encased in anything. They were just terra cotta line, just in the --

SUPERVISOR NEWLIN: That's better than gravel encased though in terms of transmission.

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MS. SANDY STAIGERWALD: Absolutely. Yes.

Especially the clay out here, it tends to be a little tighter and seal a little bit better. Where we did see gravel was basically limestone screenings that we saw. It didn't wrap all the way around the line. It was used more as a bedding material beneath the line.

And those were really, the lines that we did see that in were on Somerset Group property and CWM property.

And actually only in really a limited area on that old Air Force Plant 68 area. And then we didn't see it throughout the entire length of the line. Most of these lines we tried to go wherever we saw a crack in the line, target that area. Or if we didn't see anything specific to target, at regular intervals, every 200 feet or something along those lines. What we would notice is that we would open a line here and maybe there would be bedding material, maybe there wouldn't. Or there wouldn't be bedding material and we might go 200 feet and then there would be bedding material.

So in the southern portion of the Air Force Plant areas, on some of the line types it was not consistently placed. In some of the Somerset Group

lines, the wastewater lines, it was consistently placed. So some of those wastewater lines across the Somerset Group where we encountered those lines and could identify them specifically as wastewater line, they were underlaid with this limestone screening. But none of the lines that were traversing like the 30 inch outfall line, that was a concrete encased line.

SUPERVISOR NEWLIN: The Town's concern would remain, is it just transporting the old Air Force site or is it possibly channeling anything from the current CWM site, laterally off site that would be interesting for us to know. Is it just moving the old waste or is it possibly moving newer material.

MS. SANDY STAIGERWALD: Nothing that would be moving from off the top of my head, from CWM site off, but from the Somerset Group site onto CWM, that is a possibility because those wastewater lines did traverse onto that property.

SUPERVISOR NEWLIN: Okay. Thank you. One last question then is, from your examination of these underground pipes, are you led to believe that the water that's in there now is from a long time ago, or is the infiltration and inflow problem increasing so that as

time goes by we're seeing more movement down there, or is the water that's in those pipes relatively static and just left over from years past, or is it getting worse and we're moving new material and new water around?

MS. SANDY STAIGERWALD: I don't think I can answer that definitively for all lines and all of the bedding material that we saw. But I anticipate that some of that was perched, you know, we have layers of sand lenses in the subsurface. Some of that could be perched groundwater that has been trapped in that bedding material and some of it is probably material that has leaked out of the lines. To guess whether or not it's a continuing leak from the lines into that, I don't know, I wouldn't hazard a guess.

SUPERVISOR NEWLIN: You said some of the piping material was even going back past terra cotta but to wood, is that right?

MS. SANDY STAIGERWALD: Yes. In our investigation only on the wastewater treatment plant, if I recall correctly, we encountered a wooden pipeline. Having said that, the 42 inch, the big intake freshwater line that originated at the Niagara



River and traversed onto LOOW, a portion of that was actually constructed out of wood as well.

SUPERVISOR NEWLIN: That's surprising. You wouldn't think it would be that old.

MS. SANDY STAIGERWALD: I think, you know, you pick up little pieces of information as you go through some of the historical records, some of which are simple, as like the Weekly Record of LOOW. It's more for the folks and the people that are working there. And you get a sense that they were actually running out of some raw materials when they were constructing these plants. So that's --

SUPERVISOR NEWLIN: Well, I guess I'd like to see a delineation of where the wood lines are, too, and how prevalent they are. That's going back a ways.

MS. SANDY STAIGERWALD: Yeah. I can definitely show you where I know where some of those wood lines are. What I don't know is along that 42 inch intake line exactly where the wood started and where the --

SUPERVISOR NEWLIN: Are we talking about tens of feet or hundreds of feet of wood line or --

MS. SANDY STAIGERWALD: Is anyone from the  
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Town of Lewiston, the water works or public works?

SUPERVISOR NEWLIN: No, we don't have anybody here unfortunately, no.

MS. SANDY STAIGERWALD: Okay. Because I was going to say, Mr. Lockport --

SUPERVISOR NEWLIN: Lockhart.

MS. SANDY STAIGERWALD: -- or Lockhart, he may know.

SUPERVISOR NEWLIN: Yes.

MS. SANDY STAIGERWALD: Yeah. Can you go up to, say slide -- I guess the best one would probably be slide number 7.

MS. ARLEEN KREUSCH: Was that a handout, Sandy?

MS. SANDY STAIGERWALD: Yeah. If you have a handout you should -- no, this figure I don't think is in -- no, it's not on the handout.

MS. ARLEEN KREUSCH: Okay.

MS. SANDY STAIGERWALD: We have not performed any excavations along this line.

SUPERVISOR NEWLIN: That's the 42 inch line?

MS. SANDY STAIGERWALD: This is that freshwater intake line.

SUPERVISOR NEWLIN: Yeah.

MS. SANDY STAIGERWALD: Exactly. However, when we were doing some site reconnaissance, we did notice in some of the archive searches that we did that they mentioned a portion of that line was constructed out of wood. And then we did notice, when we were doing a site reconnaissance, where was that, I think it was up in this area, up in this area here, that you could see -- actually it was on the National Grid property.

We were doing some site reconnaissance and we saw a part of the wood stave. I think they had done some construction work and had actually removed a portion of that line. So there might be some evidence in the historical record of exactly where that transition took place. Off the top of my head, I don't know. It's one that we might have to table and we can look up. Is it just moving the old waste or is it possibly moving newer material. But I do know that this end definitely has some of the wood.

SUPERVISOR NEWLIN: Okay. Thank you.

Finally I just want to --

MS. SANDY STAIGERWALD: That's the intake.

SUPERVISOR NEWLIN: I want to associate  
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myself with some comments that were already made, but I do think it would be a grave mistake if taxpayer money was prioritized to be spent on concerns regarding the CWM site as opposed to concentrating on public health and safety. There are so many concerns there, I think the CWM interests should certainly take a deep back seat to those. But that's my only comment. Thank you for your time and your answers. And I look forward to getting a delineation of those lines as to what are gravel encased, what are concrete encased and where the wood lines might be. Thank you.

MS. ARLEEN KREUSCH: Okay. Another question? There must be more questions. Come on.

MR. WILLIAM McDONALD: I have a question.

MS. ARLEEN KREUSCH: Okay. And your name is?

MR. WILLIAM McDONALD: William McDonald.

MS. ARLEEN KREUSCH: Mr. McDonald, is it possible for you to come up where there's a mike so that everybody can hear you?

MR. WILLIAM McDONALD: My name is William McDonald. I live in Lewiston, New York. I've lived in Youngstown. I lived in the Town of Lewiston. I

lived in the Town of Porter, over the past 40 or 50 years. I've often asked both in the Village of Lewiston and the Village of Youngstown and the Towns of Porter and the Town of Lewiston if I could get a map that would show the various properties that are classified as questionable, or whatever you want to call them, out around the Creek Road and the Lew-Port School System and down on the Youngstown-Lockport Road.

I know the properties are down there someplace and I've gone, driven around down there and there are chain link fences with very tiny little signs on them saying what they are. It's very difficult to know what it is you're looking at and what classification that property is, if anything.

I'd like to see a map published and available to everybody who lives in this area, particularly those of us that have had children going to school there, just what is there, where is it, and if we wanted to hire our own professional people to inquire about it, how would we go about doing that? It seems to be a big mystery. I've gone into the Town of Porter, for example, in their offices there at Creek Road, and I guess it's Youngstown-Lockport Road, and they don't

have any maps whatsoever, none, no maps of the area that would identify who owns what. And I've tried to make them up myself. In fact, I brought some with me.

But it's very difficult. It's like putting a jigsaw puzzle together. So I'm so happy to see that the officials are here this evening, particularly the Army Corps of Engineers, who apparently are the grandfather of everything that's happening in this area. But as far as I know, they haven't been readily available, at least I've never known just exactly where to go to get these answers. So I'm hoping that this evening will produce that for us.

MS. SANDY STAIGERWALD: I can field that question. It's Sandy Staigerwald again. The Corps is actually -- it's not released yet, but the Corps is actually putting together a document, the Management Action Plan that we discussed, and actually this gentleman over here is holding up a breakout of every parcel. There are a little over 550 parcels that comprise Lake Ontario Ordnance Works and the easements that had been formerly used by the Department of Defense.

What the Management Action Plan will do is  
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identify how these different parcels are being carried through the investigations and whether or not they even need an investigation, meaning that there were some that were categorized as, it's just residential property right now, we don't have any indication that it was used or there were any DOD activities that took place on that property, all the way up to parcels that were, we know these were used for TNT manufacturing and we know from remedial investigations that there is some impact there.

So when -- because I think the concern is shared by everybody that it's a big comprehensive site with a lot of different issues, lot of different subsites and areas of concern here. So that's why that document was put together.

And when you finally get a chance to take a look at this, you'll be able to see, you know, if you happen to live within the footprint of LOOW, you'll be able to pick out exactly what parcel you are and go to a sub-report, which is that property specific Management Action Plan, and it will detail all the investigations that have been done to date on those parcels and also what the status is what the plan is

for that parcel.

MR. WILLIAM McDONALD: That is the absolute key to what we're talking about. The map is number 1. Number 2 is an explanation of the history of the various sites, what's been done with it, what it was used for, what's been dumped on it, if anything, and how it stands now. I'd also add one other question, then I'll stop talking. I'm quite curious, various times you read in the newspaper that the response of the various citizens who have inquired at these meetings, and the response is, there is no hazardous property in this area and that we have no worries in the Lew-Port School System and so forth, I know of any number of people who have brought action against whoever is involved, they were involved with, working in this area, and particularly in these mapped out areas, that have made various financial settlements with whoever the authority is. I'm not sure exactly who because there's been so many people involved. But I know of some judgments that have come through, as much as a quarter of a million dollars. So if that is so, why would anybody make a settlement for figures like that if we were sitting in perfectly safe property?



MS. SANDY STAIGERWALD: I don't know if I could answer that specific question.

MR. WILLIAM McDONALD: No. I wouldn't expect that you could. But that's what I'm building up the groundwork for. Let's see if we can't find the answer to those questions.

MS. SANDY STAIGERWALD: Right. And I think this will go, when this document is released, it will go a long way of showing people the areas and the parcels that actually have some DOD, former DOD activities, and then a summary of those results, and if we think that there is enough concern to actually carry that through in different, you know, additional investigation and even possibly remediation in the future.

MR. WILLIAM McDONALD: I'd also like to have on the tail end of this what if any decisions have been made that we hear so many rumors about with the cleanup of the area down by Albany from the General Electric waste matter that's in the Hudson River. We don't know, we just hear rumors. Is that material going to be brought here, and if it is, when, and also what is the potential damage of that to our community?

MS. SANDY STAIGERWALD: Yeah.

Unfortunately that one's definitely beyond my knowledge level, so if anybody else could address that.

MR. KENT JOHNSON: I work for the New York State DEC and I come from the Hudson River Dredge Project. I live near Albany. That's going by train to west -- WCX in West Texas. Actually the dredging has slowed down. They're having some problems with high water levels but that is going on right now and it is all going by train to West Texas.

MR. WILLIAM McDONALD: Thank you.

MS. ARLEEN KREUSCH: For our court recorder that was Kent Johnson. Okay. Additional questions? MS. AMY WITRYOL: Arleen, are you segregating the RI questions from the NFSS questions?

MS. ARLEEN KREUSCH: No. We can take any at any time.

MS. AMY WITRYOL: Well, just on the Management Plan Map that Bill was holding up, the 1500 acres south of Balmer Road had multiple uses, so I'm kind of wondering, when we look at, for instance, the example of the outline of the NFSS, it has both the

DOD and DOE impact, so could you give us a sense for whether or not this management plan is being configured based on property ownership or based on historical activity for the closeout process?

MS. SANDY STAIGERWALD: Yeah. Actually, it's based on, it is based on historical activity and that's how we group the parcels together. If we thought there was very little impact and, you know, basically different gradations of impact from former DOD activities. But at that point it's also by parcel because once a parcel is identified as having that specific impact it gets placed into that parcel group.

In regards to Niagara Falls Storage Site and whether it's, you know, you mentioned the Niagara Falls Storage Site versus the regular, you know, FUDS, Formerly Used Defense Sites activity, the Management Action Plan is geared a little bit more toward the Formerly Used Defense Sites investigations. However, we do incorporate investigations that have been done for the FUSRAP side of things, and including the vicinity properties that were also on any or all of those parcels. So that's also discussed in the property specific Management Action Plan.

MS. AMY WITRYOL: And will the risk assessment for all of those programs be combined?

MS. SANDY STAIGERWALD: We discuss -- I'm trying to recall actually. I think because Niagara Falls Storage Site is being investigated under FUSRAP, I think we leave it at that in that Management Action Plan, meaning that we discuss that there is a risk assessment in just very broad terms and we refer the reader to the actual risk assessment report, but it doesn't pull two risk assessments together and assess it as one big risk. It does not do that. It simply presents the information and then presents the proposed path forward through the environmental response process.

MS. ARLEEN KREUSCH: Follow up question, Amy or --

MS. AMY WITRYOL: Well, I actually had a FUSRAP question but --

MS. ARLEEN KREUSCH: Is there someone else that has a question or would you mind if Amy asks another one? We're okay, Amy.

MS. AMY WITRYOL: What feedback is the FUSRAP program getting from other agencies on the development

of the feasibility study, you know, in terms of potential options or reinforcement of the containment for the residues at the Niagara Falls Storage Site?

MS. MICHELE RHODES: I'm Michele Rhodes. Amy, we did solicit information from both the EPA and the DEC on the ARARs or the applicable regulations that may be looked at in the future. We're nowhere near looking at them right now but we wanted their input in advance of that deliverable.

I guess our first deliverable for the feasibility study for the Niagara Falls Storage Site is a feasibility study work plan and that will basically lay out sort of our approach in issuing these interim tech memos and these tech memos will be sort of grouped by a topic so an ARAR would be one of the tech memos that we look at but we're not near getting to that point.

We did incorporate in the Feasibility Study Work Plan actual meeting minutes from an internal meeting talking about, sort of giving a feel for where we're headed so that everybody could see sort of the approach that we're thinking. And basically it's designed to solicit input in advance of actually preparing the report.

MS. AMY WITRYOL: Since Mr. Johnson is here from the DEC, has a copy of your ARAR recommendations been provided to the RAB radiation committee or is that something you could do?

MR. JOHNSON: That would be something you'd have to talk to our radiation program. John Lynch would be the person to talk to. I haven't been involved in that.

MS. AMY WITRYOL: Could you shepherd that request for us?

MR. JOHNSON: Okay. Again, I'm not aware of anything on that topic. I will ask Mr. Mitchell.

MS. AMY WITRYOL: If you could facilitate the transmission of that information.

MS. MICHELE RHODES: I think there was some kind of -- and it wasn't solicited at that point but as part of the DEC's comments on the RI report, they were chemical ARAR based, not radiological. That would be sort of John's field, but those are the ones I was referencing.

MS. AMY WITRYOL: Well, one of the reasons why I ask is, a couple of years ago Dr. Boeck suggested that the Army Corps convene with a Restoration Advisory

Board meeting, a discussion of lessons learned from Fernald, which had the same high activity, K65 residues, which it was able to successfully ship off-site that we have here at the Niagara Falls Storage Site, and I did see the other day a letter from the EPA to you about not only the standards that if a repository cannot be identified that the NFSS containment should meet the standards for containment of high level radioactive waste, and possibly consider vitrification, which I think was the first step of stabilizing the material at Ohio.

So it might be a very good time now to, whether the Army Corps recognizes the Restoration Advisory Board or not, to at least convene a meeting with knowledgeable folks like Dr. Boeck to have some people from Fernald as well as the Buffalo district talk about how things were handled at Fernald that would be good preparation for us for when the feasibility study is done and we get a look at some of the options. Because at least this as a first step would give us the opportunity to see what's been done and then give us the adequacy of time to begin to research some things on our own in preparation for that report. And could

you remind me, what's the time frame for the feasibility study? Target date, estimate?

MR. KOWALEWSKI: Completion date or the starting?

MS. AMY WITRYOL: Completion.

MR. KOWALEWSKI: Again depending on the funding stream, if it comes in as it has, in the 2012, 2013 time frame to have that finished, but we will see products along the way as it's developed.

MS. MICHELE RHODES: Part of the reason for the time frame is because we're issuing it the way we are. We want to obviously integrate everybody into the process. As Amy mentioned, these FS technical memos, for example, one of them will be, these are the alternatives that we're looking at for the different operable units on site. So you could see what we're proposing, you know, be able to suggest things, take a look at it. Fernald, excellent, you know, we definitely want to take advantage of what Fernald has done. They have the other half sort of our K65 residue, which is the risk driver for the Niagara Falls Storage Site and what we plan on doing is a waste disposal and Fernald lessons learned tech memo. So that will be



something that we're initiating.

In addition to that, we actually have contractors that were integral to the Fernald project reviewing, independently technically reviewing our feasibility study documents to ensure that any additional information is incorporated that we need to know.

MS. AMY WITRYOL: Thank you. And I would also encourage you to make the RAB radiation committee aware, you know, that Mr. Johnson or whomever is representing the DEC to the Restoration Advisory Board radiation committee, copy them on your recommendations to the Corps and if the Corps could keep us advised as to what they hear from whether it's the Department of Energy or the EPA so that we can start thinking about these ideas or if we have some information that we think could better inform some of the points being made by the agencies, that the community has that opportunity as opposed to the agencies having this conversation coming to consensus and then a document is published and then we go through public input. It's pretty difficult for the public to have influence after there's a consensus on the part of many agencies. So

to the extent we can kind of march down that road together, hopefully, you know, better information will be available and help the Army Corps reach some conclusions sooner and help actually expedite the time frames for the public participation process.

MS. MICHELE RHODES: We definitely appreciate any input we get and just to mention, too, that the layout kind of a phased approach to issuing the feasibility study tech memos was designed so that we would be able to get the input before we actually went further in the process and used that conclusion later on. So it was phased intentionally to make sure that we didn't sort of progress to the point where we'd have to rework a lot to go back and incorporate any information we received.

MS. AMY WITRYOL: Arleen, the only other question I have is whether or not the Department of Energy, the DEC or the Army Corps knows of any topic they think that might be of interest to us that's being undertaken right now that hasn't been discussed yet or presented tonight.

MR. JOHNSON: One thing that might be of interest I think as it progresses is the stimulus funded

take-down, the demolition of building 401, which is probably going to be taking place next summer. But the Corps of Engineers, because it's a stimulus funded program, it's in a very tight time frame, and they hope to have a contractor, at least the current schedule to us was that they hope to have a contract in January or February and by next summer hopefully have work plans in construction -- or demolition of that building, and that might be something that I think the public would be very interested and would like to know what's going on, because it's a fairly large project.

MS. ARLEEN KREUSCH: There is a fact sheet on that in the folder on the left hand side, the very last fact sheet.

MS. MICHELE RHODES: Just one point to note, one of the advantages of kind of taking this new map approach to LOOW is that we are actually starting to close out some of these properties. We are going to initiate that process, develop it so that we can just keep, you know, slowly picking away at LOOW and get these environmental concerns taken care of. One of the strategies we have is sort of taking the low hanging fruit, or the areas, you know, such as a lot of the

residential areas that Sandy mentioned that are, have no impact. It's more of a paperwork exercise to close those properties out since there's no environmental monitoring necessary because there was no activities there to sample for. So one of those low hanging fruit is the Lewiston-Porter Central School. So we have met with Lew-Port, with a supervisor and the environmental subcommittee to sort of gather what kind of concerns people may have remaining on that and to close -- do some additional sampling in the spring to close out any concerns and to in essence close out that property from our map.

MS. AMY WITRYOL: Are there any other meetings or conversations or projects with any other stakeholders that you'd like to share with us?

MS. ARLEEN KREUSCH: Our next meeting is December 2<sup>nd</sup>.

MS. AMY WITRYOL: I see we still have a representative from CWM in the back. I'd invite them if they want to talk to us about their request to open vicinity property C, we'd certainly appreciate them sharing any information with the public that may be relevant to that waste material on the LOOW site.

MS. ARLEEN KREUSCH: Okay, Amy. Are you okay now?

MS. AMY WITRYOL: Yes.

MS. ARLEEN KREUSCH: Okay.

MR. NEIL REARDON: Just one.

MS. ARLEEN KREUSCH: Yes, Neil Reardon.

MR. NEIL REARDON: My name is Neil Reardon. Go ahead. I'm sorry. Go ahead.

MS. ARLEEN KREUSCH: I was going to have you state your name and who you're --

MR. NEIL REARDON: Okay. Neil Reardon. Mayor of the Village of Youngstown. And as you know, as you attended and Bill attended as did other representatives other including the colonel from the Corps, we had a really constructive dialogue and a three-hour roundtable meeting with virtually every elected official from Western New York, both State, local, Federal and including the Health Department and school officials as well. And the good theme of that meeting, a solid theme and a universal theme was to still try to gain official recognition for the LOOW RAB so that we'd at least have a community voice with

a lot of expertise that we as elected officials don't always have. And again, I think the meeting, I think you'd all agree was very constructive, was not adversarial. It was very objective. We actually had two meetings, one prior and then one with the Corps.

And we also had some Federal representatives there that were trying to get something passed in Washington to support that cause. But has there been any progress at all in terms of maybe official recognition for what we'd call the LOOW RAB or a group of that nature. Amy talked about community representation and it's critical to all of us that we with you report back to our community on an often basis to make sure that they know the progress of these sites.

And you've been very proactive in terms of sending out the notices to all those members and to all of us and the data, like this evening, and the meetings, but it's absolutely vital to us that we have official recognition as you saw uniform agreement on that day of a voice, an official voice like the LOOW RAB at one time was recognized as. And I was wondering, was there any more discussion or any progress in that realm?

MR. KOWALEWSKI: There has been really no movement on the issues that we left it with at the last meeting, which was that this is above and beyond a Buffalo district decision. This goes to the Department of Defense, the US Army, to make a decision on that should the elected leaders pursue that with them. So the Buffalo district has really not done anything since the US Army responded to the New York State Attorney General's inquiry some months ago and laid out their rationale at that point.

MR. NEIL REARDON: Okay.

MR. KOWALEWSKI: And maybe, Arleen, do you want to explain the time frame for under DERP FUDS the resolicitation of interest in a DOD RAP.

MS. ARLEEN KREUSCH: We solicited interest almost two years ago now in an official Department of Defense restoration advisory board. And we are required by regulation to solicit the community every two years to find out if they have interest in establishing a board. The time frame for that will be April of 2010 so we will be once again asking the community what their preference is on that and we will be placing ads in the newspaper and sending the news from the Corps and

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all the things that we did last time to try and find out what the community is really looking for in that area.

MR. NEIL REARDON: I promise you you'll get a good response. So, thank you.

MS. MICHELE RHODES: Can elaborate on how many responses are needed.

MS. ARLEEN KREUSCH: Off the top of my head, I know that we either need the EPA or I think the DEC to say that they would like us to have a restoration advisory board. Or we need 50 letters from the community saying that they would, they are interested in having a restoration advisory board.

MS. AMY WITRYOL: Didn't both the DEC and EPA, certainly the DEC, sent us a letter of support for the restoration advisory board.

MS. ARLEEN KREUSCH: They sent a letter of support for the community based volunteer group but they did not send a letter that said that they wanted us to establish an official Department of Defense restoration advisory board.

MS. AMY WITRYOL: Mr. Johnson, could you get a letter by the end of the week asking the Army Corps



to convene an official restoration advisory board?  
This is the first we've heard of that fine distinction.

MR. JOHNSON: Quite honestly, it sounds like semantics to me. I thought the Department's point of view was there, but we could do it but what it sounds like to me is that nothing is going to happen before April.

MS. AMY WITRYOL: Well, it's a yes or no question. Could we get a letter from the DEC by the end of the week?

MR. JOHNSON: I could prepare something to send, for my management to send out.

MS. AMY WITRYOL: We'd appreciate it.

MR. KOWALEWSKI: And I just don't want to overlook all the discussion that we had at the two roundtable meetings about the particulars with what the Corps can do with an official DOD RAB, so those issues remain regardless.

MS. ARLEEN KREUSCH: A restoration advisory board meeting would look very similar to what we have right here.

MS. AMY WITRYOL: Well, there's a lot of discretion on the part of the installation. I think

maybe, Kent, I understand what the distinction is.

The Corps is saying that the DEC's letter supported the community based board because the Corps believes that it followed regulation in disbanding the restoration advisory board that it created in 1999.

So that must be why they're making that distinction.

So we would -- on further thought, we're probably better off leaving the DEC letter as is because if the DEC requests an advisory board to be reconvened, it would leave the false impression that the advisory board that was convened was ever dissolved in accordance with regulation and that's where we, the DEC, and the Attorney General of the State of New York have a disagreement with the Army Corps.

MS. ARLEEN KREUSCH: If an official Department of Defense restoration advisory board is formed, there will be a selection panel that is formed and there will be applications taken for membership.

MS. AMY WITRYOL: Again, the position of this community, its municipalities and the DEC, and the Attorney General of the State of New York is that you already have a restoration advisory board. So I guess we can agree to disagree on that point.

MS. ARLEEN KREUSCH: Okay. Thank you.

DR. SPRY: When the speaker talks about the idea that the community is represented by the RAB, that's simply a false impression. It's not a committee that is produced by any election process. It's not known by any electorate who's on the membership, and it certainly doesn't have the support of every member of the community. Thank you.

MS. AMY WITRYOL: I guess I would just add to Mr. Spry's comments that he might talk to his town supervisor or village mayor or Niagara County or the County Health Department and we would welcome --

MR. SPRY: I would be glad to talk to them but I don't have any intention of supporting the RAB. I think it's a useless project. Thank you.

MS. AMY WITRYOL: Dr. Boeck, I'd encourage you to chime in if you'd like. Mr. Spry, I haven't seen you at a restoration advisory board meeting but would certainly encourage you to --

MR. SPRY: I've never been invited. Thank you. And I don't want to be.

MS. AMY WITRYOL: Well, the public has been invited pretty regularly but -- by both the Army Corps

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and the advisory board group.

MR. SPRY: I ask that the discussion continue on the Lake Ontario Ordnance Works.

MS. ARLEEN KREUSCH: Okay. Thank you. We can put that in the parking lot for now. It will be brought forward. Okay. Did anybody have any questions on any of the particular slides in the presentation that they saw tonight that they didn't quite understand or that they want further clarification on?

MR. KEITH FOX: Well, no, not necessarily the slides but I'm looking at the demolition of the building 401.

MS. ARLEEN KREUSCH: Okay. Mr. Fox, could you just let everybody else know who you are?

MR. KEITH FOX: Okay. I'm Keith Fox and I am vice chairman of the Town of Lewiston Environmental Commission. I carry several other hats but that's the one I'm talking about now.

I'm just wondering if it's fairly well radiologically contaminated and if it is, will there be special concern over how they handle the materials that are demolished or taken off that site?

MS. MICHELE RHODES: To answer your question, the purpose for removing the building is more to access contaminated pipelines and drains and sumps underneath. The building itself is for the majority not contaminated with RAD. However, actually our health physicist, Hank Spector, had reviewed a lot of the DOE surveys and there is localized RAD contamination that can be segregated separate from that demolition.

MR. KEITH FOX: So this will be a concern because as it says here, limited concern in some of the beams and so on and so forth.

MS. MICHELE RHODES: Right.

MR. KEITH FOX: Thank you.

MS. ARLEEN KREUSCH: Any additional questions on any of the material that was presented tonight? Yes?

MS. MARY SHRINER: Mary Shriner from Niagara University.

MS. ARLEEN KREUSCH: Can everybody hear Mary?

MS. MARY SHRINER: Can you hear me? With respect to the demolition of building 401, the focus

so far has been on radiological contamination. What about chemical contamination?

MS. MICHELE RHODES: We do have chemical contamination within the drains and sumps underneath.

We do have containers within building 401 that have chemicals in them. For the most part, we have asbestos in some of the -- we did an asbestos abatement but there's some paneling that's still there remaining.

We did that just to keep the building intact until it could be demolished. As far as chemical contamination, it will be tested but it's not necessarily a concern as far as the actual structure itself.

MS. MARY SHRINER: Is there -- did you look at lead contamination?

MS. MICHELE RHODES: It definitely has lead paint, yes. That is one thing left to worry about, yes.

MS. MARY SHRINER: And so then there would be precautions I assume taken to --

MS. MICHELE RHODES: Right. We basically write a scope of work for our contractor to go in and they are required to do, basically meet all the

necessary standards for disposal, transportation, and actual demolition.

MS. MARY SHRINER: Okay. Thank you.

MS. ARLEEN KREUSCH: For our court recorder, that was Mary Shriner.

MR. JOHNSON: Michele, you might want to just tell them that you guys got this --

MS. MICHELE RHODES: We did issue a scoping document. One of the -- building 401 was the former boiler plant for the TNT process for the LOOW. It was constructed in 1942. A lot of historic, you know, very historically significant building. So right now we're working with the State Historic Preservation Office to document its history, to make sure that's not lost before the demolition. We have a lot of -- we went into the national archives, have a lot of the 1942, the original construction reports, 1944 obliques or actual photos of it, and to see the progression. So that's one of the things we did is issue the scoping document to basically say that we are going to be documenting the historic aspect of the building before demolition.

MS. ARLEEN KREUSCH: Our person that's  
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recording the meeting needs to change his tape, so I'm going to let him do that, and you guys can think about other questions that you have. As soon as he lets me know that he's had his tape changed, we'll keep going.

Okay. Are there additional questions for anything that we've presented tonight or any of the handouts?

MR. FOX: Well, just one little question, and that is -- and I may have missed it. You may have already told us when that map that you're producing would become available.

MS. ARLEEN KREUSCH: The map actually is available in the fact sheet that was in your handout folder.

MR. FOX: Great.

MS. ARLEEN KREUSCH: It's kind of inside, it's and 11 by 17, that opens up.

MR. FOX: Good. It's also probably on the website.

MS. ARLEEN KREUSCH: Yes.

MR. FOX: Thank you.

MS. ARLEEN KREUSCH: And actually it would  
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be better to look at it on the website because you can make it bigger and focus in on certain areas.

Gentleman in the back, you had a question?

MR. MATTHEW PATTERSON: My name is Matthew Patterson. I'm with the Tuscarora Environment Program and I was just wondering, in October, early November if the Army Corps is going to be part of vigilant guard for this site to see if it would be involved just, even if it's just a paper exercise, to find out what the facility -- what results will come of the facility since it's going -- the operation for this will be about Western New York and the exercise I guess is going to be an earthquake, and I was just wondering if the Army Corps would use, would be involved just to find out the effects of an earthquake on this facility, not just the buildings, but the current Niagara Falls Storage Site and that could possibly be part of any future use efforts from the results of the exercise.

MS. MICHELE RHODES: For the -- are you talking for like the waste containment structure?

MR. MATTHEW PATTERSON: I'm talking about possibly the entire site, you know, you now know the construction and the makeup of the pipes and

potentially what was going through the pipes as well as the current Niagara Falls Storage Site where you are holding the radioactive material, just to find out even if should there be an earthquake how much can this facility withstand before possibly a breach of its current makeup.

MS. MICHELE RHODES: Okay. That's an excellent question. That's one thing that we're going to do in our feasibility study and that is actually going to be one of the technical memos. We're going to look at an earthquake scenario and what that might do to the cell and it will be presented in sort of two tech memos, the first being what type of radon release could be expected for different magnitude earthquakes.

The second would be what type of gamma radiation would be associated with that. So that's definitely something that we need to look at as sort of a failure scenario. That being said, I mean the area is not extremely seismically active. The closest, the closest fault is the Clarendon Linden near Attica. However, it is definitely something that is on our radar and we hope to include in our feasibility study assessment.

MR. MATTHEW PATTERSON: Okay. I was just wondering since it's going to be held in the next month and early November so I was just wondering if, letting you be aware of that it is going on and maybe can save some money and find out.

MS. MICHELE RHODES: Absolutely. We'll definitely be sure to address that, that scenario. Absolutely.

MS. ARLEEN KREUSCH: Okay. But you're talking about an exercise that's taking place in the community?

MR. MATTHEW PATTERSON: Yes. There is going to be an exercise in the community and I was just wondering if they were aware and --

MS. MICHELE RHODES: Sorry. I misunderstood your question. No, I'm not aware of that.

MR. MATTHEW PATTERSON: I can talk to you after the meeting.

MS. MICHELE RHODES: Okay.

MR. FREDERICK: The DOE early on did look at some seismic data and did some seismic calculations on the cell in our waste containment structure using,

you know, the presence of the Clarendon Linden fault, its proximity, periodicity on earthquakes and the normal size that it sees, and then they kind of ramp that up to have it be, I don't want to use the term worse case. And from whatever number, and I'm plugging this number out of my head from just reading a document related to something else we were discussing in house at one point in time, and I think it was protected to around 6.5 earthquake magnitude with that amount of ground acceleration from a magnitude that large, it would be protected. The likely scenario would be like a failure, a slump, part of the sides would slump out. So I believe that's what the DOE came up with in their early documents and we're going to be looking at newer data, newer technology.

MS. ARLEEN KREUSCH: Okay. So --

MR. FREDERICK: I did read in the paper about your simulation. You are right. There are something going on, had something to do with a vigilance study.

MS. ARLEEN KREUSCH: Is there a way that we could contact somebody or somebody could contact us with information about that?

MR. MATTHEW PATTERSON: Yes. I can get you  
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that information.

MS. ARLEEN KREUSCH: Okay. Thank you.

Additional questions from the audience? Go ahead.

Please state your name and --

MR. JIM LANGLEY: My name is Jim Langley,

I live in the Town of Lewiston. I'd like to comment on the 401 report that you gave on the building. I thought that was extremely complicated and a very, very informative report. I had visited this building a couple times, once when I was on the RAB board before, and also as a Town Board member, and the place is a disgrace. It just has to be removed and I'm glad that you're taking action to do it. It's going to create a lot of employment in the area also because the number of things that have to be done. I think this is our own area stimulus program for the number of jobs that are going to be created. But let's get the jobs here.

The job has, this has to be done. Let's get with it.

The one thing I wouldn't like to see a lot of money spent on though, there was a little comment in here that there is some preservation group that is thinking maybe this is a historical building that has to be saved and rectified. It's the craziest thing I ever heard

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of. The building is a disaster and has to be removed and made, the areas underneath it made safe and remove the radiation and so forth. And so I hope that we can get with it and get this building out of the community.

MS. ARLEEN KREUSCH: Thank you.

MS. MICHELE RHODES: Definitely it's still structurally stable but absolutely it's in a very deteriorated state, and just one thing to mention is, we have been working with the State Historic Preservation Office and they have indicated that we may be able to sort of make an agreement that as long as we properly document it, that it might be able to be demolished. So I think that's sort of the path we're going on that.

MR. LANGLEY: Yes. Let's save that money.  
Right.

MS. MICHELE RHODES: Yes.

MS. ARLENE KREUSCH: Okay. Thank you.  
Additional comments or questions? Amy, are you set?  
We've still got 15 minutes. There must be something on the slides that somebody has a question on. No?  
Okay. Okay. Dr. Boeck. Thank you.

DR. BOECK: Well, among the issues that were  
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touched today is the property which is called Baker Smith area as well as the Lewiston wastewater treatment plant. Now Baker Smith was a contractor and they had a variety of shops and a railroad line there. The issues are in my opinion radiological issues. There is a railroad loading platform. There is a railroad bed. There are a number of shops that were used for reactor waste storage as well as Manhattan District storage.

And the issue then is that the properties on the NFSS side of the fence were excavated and soil was removed. The very same loading platform on the Town of Lewiston side apparently was not examined closely except every 50 feet or something like that and the obvious question is, if you're going to spill something when you're loading and unloading barrels on railroad cars, this is the place to look. However, it has rained on those loading platforms for many, many years and the place not to look is on the platform but in the soil nearby. Anything on top would have washed off. So this is an area that we think needs additional examination because of the history of radiological use in that area and the fact that there is a transportation

route and the very likelihood of spills and leakage from barrels and the items that were both loaded and unloaded in that area.

So that is an additional consideration on that property not particularly on the wastewater treatment plant itself but on the so-called vicinity shops, and I understand that the foundations of the buildings are there. And again, foundation themselves have probably been washed by rainwater for many years, so it would be the vicinity of those foundations.

MS. MICHELE RHODES: Just to respond, you mentioned the Baker Smith area and it's definitely one of the areas we're focusing on for our remedial investigation addendum. That was one of the comments that was made on the report itself and it will be included in the sample locations. The, part of that will be, you know, is there a potential for groundwater off-site migration of this, this groundwater contamination and that will extend on to the Town of Lewiston property to make sure that it hasn't migrated substantially past that. From what we see on-site and with the tight clay soils, and it does have intermediate sand pockets, but the known RAD storage area as you



can see definitely haven't migrated very far, which you would expect because of the clay. But that's definitely something that we're going to be pursuing.

MS. AMY WITRYOL: Michele, if I remember -- this is Amy Witryol. Michele, I remember in the original Remedial Investigation Report there was a plume in the Baker Smith area, wasn't there a uranium plume there. So that -- what's the proximity of that plume to the areas that Dr. Boeck has just described?

MS. MICHELE RHODES: Basically we made that the boundaries of the groundwater contamination from three locations. So in a way it looks very large but we kind of exaggerated it because we didn't have a lot of data in between to make it smaller. So that area is the Baker Smith area and that's within the shops that he's discussing.

MS. ARLEEN KREUSCH: Okay. Additional questions? No? Okay.

MR. AARON BESECKER: Aaron Besecker, Buffalo News. Just wondering, the results of the risk assessment that were presented earlier, I just want to make sure I understand it. There were 10 exposure

units and it looks like about half of them have potential human health concerns. Am I saying that correctly? Is that the right way to look at it or --

MS. ARLEEN KREUSCH: Cynthia, could you say your name again and --

MS. CYNTHIA CHEATWOOD: Basically the 10 exposure units also include exposure unit 10, which is the underground utilities which traverse quite a few property owners. You are correct in that certain receptors I think as we identified, areas 1, 3, 4, and then exposure unit 10, the underground utilities as they traverse across the Town of Lewiston and also Somerset, and then exposure unit 8. But not for every receptor evaluated, just for certain ones.

MR. AARON BESECKER: Okay.

MS. ARLEEN KREUSCH: Is there a fact sheet or a handout that will --

MS. CYNTHIA CHEATWOOD: Yes.

MS. SANDY STAIGERWALD: It's Sandy Staigerwald. Actually in the packet that you received, if you go to handout 18, that's, within Associated Reporting Service  
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the packet that's your most concise summary of the risk assessment results. So it lists the different EUs, EUs 1 through 10, keeping in mind that EU7 which is the wastewater treatment plant, has not yet been assessed for risk because it's actually undergoing an investigation right now.

MS. ARLEEN KREUSCH: Okay. So you said handout number 18.

MR. NEWLIN: What's the cover sheet on that one?

MS. ARLEEN KREUSCH: It's probably almost the last sheet in your folder.

MS. SANDY STAIGERWALD: Looks like a large table and there's also a poster of this, too, in the back. Right down in the corner you should see handout number 18.

MR. FREDERICK: This is Bill Frederick, remember for the residential scenario where you have like potential exposures to children and stuff like that. That is for somebody who would be living, you know, putting up their house, having their garden and playing in the dirt. You know, a potential person.

MS. ARLEEN KREUSCH: Was that a slide that we need to bring up, too?

MS. CYNTHIA CHEATWOOD: This is Cynthia Cheatwood again. Also within the Town of Lewiston and the Somerset Group property the underground utilities exposure unit 10, if we found a concern for the resident, we had to make the assumption that a resident would dig up these utilities and then not dispose of them or keep them basically in a soil pile in the backyard for a certain amount of time and that they would be exposed to that. So we assumed a definitely maximum exposure case.

MS. AMY WITRYOL: Amy Witryol again. My earlier question to Sandy about the combination of the risk assessments, while I understand the limitations of how the receptors are created, I just want to be clear that from my view, while I have no reason to doubt the integrity of this particular analysis, from my view it's not relevant to human health risk because it doesn't consolidate all of the risk issues out at the site and it's not really within, the risk issues at the site are not limited to Federal contamination as well. So I just wanted

to be clear for the record that someday we hope regulation is structured in such a way that a combined risk assessment layering all of the programs and all the sources of contamination, which is how the community looks at it, what's the sum total of the risks to me, as opposed to the pieces by regulation that you're charged with analyzing for us.

MS. SANDY STAIGERWALD: One point to note in that regard is that, just a reminder that in the exposure units that we did perform the risk assessment for, those exposure units included data from what we refer to as that full suite of chemical analyses.

So the samples were collected and analyzed regardless of any non-DOD potential impact because in those areas we didn't really suspect there was a lot of non-DOD impact. So they were assessed with volatile organic compounds, semi-volatiles, all those, explosives, metal, et cetera.

MS. AMY WITRYOL: Well, in the addendum sampling that includes not just full chemical suite but radiological is done. We hope there is an opportunity to revisit these risk assessments.

MS. SANDY STAIGERWALD: Right. And to clarify, that is correct that this does not include risk from radiological parameters.

MS. AMY WITRYOL: Right.

MS. ARLEEN KREUSCH: Aaron, did you have a followup question with that?

MR. AARON BEDECKER: No.

MS. ARLEEN KREUSCH: Okay. Additional questions? The team will be available for 15 minutes after if anybody has any one-on-one questions. Please remember that you have comment cards in your folder. Please write your comments on there if you didn't have something that you thought should be addressed tonight but needs to be addressed at a future meeting, or if you have suggestions about meetings or whatever, please put them in the box in the back. We do have news from the Corps electronic email list service, so if you are not on that and you want to be, please make sure that you either gave us your email address on the sign-in sheet or that you see us after to make sure that we have it. Other than that, I want to thank you very, very much for

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coming, and we will be having another meeting in December on the 2<sup>nd</sup>, and it will be in this facility, so we hope to see you then. Thank you very much.

(Meeting concluded.)

US ARMY CORPS OF ENGINEERS

CERTIFICATE

I, RHETT L. BAKER, certify that the foregoing transcript of proceedings in the matter of US Army Corps of Engineers, Re: Former Lake Ontario Ordnance Works (LOOW) Phase III (Underground Utilities) Remedial Investigation (UURI) and Human Health and Ecological Risk Assessment Results Workshop, was recorded on a SONY 146 Confer Corder, and transcribed from same machine, and is a true and accurate record of the proceedings herein as best we could do due to the fact that some people were not on microphone and were inaudible.

Signature

Rhett L. Baker

Associated Reporting Service

Post Office Box 674

229 West Genesee Street

Buffalo, New York 14201-0674

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