U.S. ARMY CORPS OF ENGINEERS
DEFENSE ENVIRONMENTAL RESTORATION PROGRAM/
FORMERLY USED DEFENSE SITE

PUBLIC MEETING
TECHNICAL PLANNING PROCESS
PHASE IV REMEDIAL INVESTIGATION AT THE
FORMER LAKE ONTARIO ORDNANCE WORKS
NIAGARA COUNTY, NEW YORK

MARCH 25, 2009
LEWISTON SENIOR CENTER, YOUNGSTOWN, NEW YORK

The following is a summary of a public meeting held on Wednesday, March 25, 2009 at the Lewiston Senior Center, Youngstown, New York.

OPENING REMARKS AND ANNOUNCEMENTS

Ms. Arleen Kreusch called the meeting to order and asked everyone to take a seat.

Mr. Bill Kowalewski from the US Army Corps of Engineers, Buffalo District, opened the meeting at 6:02 p.m. by welcoming everyone and thanking them for attending. He stated the subject of the meeting is the Public Technical Planning Process for Phase IV of the remedial investigation of the Wastewater Treatment Plant at the former Lake Ontario Ordnance Works (LOOW). Mr. Kowalewski said he wanted to bring the technical team out and have them engage with the community one-on-one and as a group. He noted the Corps could then go forward with the project with a full understanding of the community's concerns and recommendations from the community.

Mr. Kowalewski then introduced the Corps' technical team present at the meeting: Ms. Arleen Kreusch, outreach specialist; Ms. Linda Houston, program manager who oversees projects at LOOW; Mr. Jeff Hall, project engineer and technical lead; Ms. Liza Finley and Dr. Karen Keil, risk assessors; Mr. Bruce Sanders, public affairs officer; Mr. David Frothingham, Chief of the environmental engineering team; Mr. Steve Bousquet, Chief of environmental health team; Ms. Natalie Watson, logistics support; Ms. Sandy Staigerwald and Mr. Sean Carney, two lead contractors conducting investigations and field work at LOOW. Mr. Kowalewski mentioned Arleen Kreusch is the person who responds to phone calls and e-mails from the community regarding the site.

Mr. Kowalewski again expressed his appreciation for the community members attending the meeting. He recognized and thanked the volunteer community Restoration Advisory Board (RAB) who have researched this site and provided in writing to the Corps a few weeks ago their concerns and guidance. Mr. Kowalewski noted that as the evening's meeting moved forward, if issues come up related directly or indirectly to the site, the Corps will use those issues to build the agenda for future meetings. He advised the next meeting would be in the June timeframe. Mr. Kowalewski then turned the meeting over to Ms. Arleen Kreusch.

Ms. Kreusch expressed her appreciation for everyone attending. She stated there were comment cards on the back table as well as business cards with her contact information. Ms. Kreusch advised copies of the presentation will also be available on the back table after the meeting and encouraged everyone to pick up a copy as they are leaving. Ms. Kreusch explained that e-mails with the latest project information are sent out about once a month and anyone interested in receiving these e-mails should include their e-mail address on the sign-in sheet. Ms. Kreusch noted that the meeting was being videotaped to capture all of the input, as well as audio recorded so a transcript could be produced. Ms. Kreusch reviewed the meeting agenda, noting there would first be a presentation, then a poster session, and then the room would be re-arranged for a round table dialogue session. She noted the New York State Department of Environmental Conservation and Dr. Bill Boeck also had some slides which would be shown just prior to the start of the roundtable.

Ms. Kreusch then introduced Ms. Sandy Staigerwald to discuss the technical work upcoming at the site.

PRESENTATION

Ms. Staigerwald stated she and Sean Carney are working for the Corps to develop the sampling and analysis approach for the next phase of the ongoing investigation at LOOW. She noted the next phase is Phase IV and targets the Wastewater Treatment Plant. She stated the work is being conducted by the Corps under the Defense Environmental Restoration Program-Formerly Used Defense Sites (DERP-FUDS).

Ms. Staigerwald suggested everyone take one of the handouts that were available at the table upon entering. She stated the handout has several fact sheets, the first of which goes over the general status of LOOW, and the second fact sheet is specific to the Wastewater Treatment Plant. She noted some of the figures from the presentation are also in the handout and will be easier to see in the handout.

Ms. Staigerwald explained that under the DERP-FUDS there are multiple project types, and the majority of the work at LOOW is under a hazardous, toxic, radioactive waste project.

Ms. Staigerwald said for those that are attending their first public meeting about LOOW and for those who do not know much about the site, a slide was included to bring everyone up to date. She said the Lake Ontario Ordnance Works was a production facility for trinitrotoluene (TNT). She continued explaining it was constructed in the early 1940s, only operated for about nine months, and was closed down. She advised several other DOD facilities were constructed after that time.

Ms. Staigerwald said the site is comprised of about 7,500 acres and is located in the northwestern portion of Niagara County, due east of the Lewiston Senior Center. She stated the site is bordered on the west by Route 18, to the north by Youngstown-Lockport Road, east of Porter Center Road, to the south by Swann Road, and is intersected by Balmer Road. Ms. Staigerwald pointed to a map and said the shading shows other areas that have been investigated under the environmental response undertaken by the Corps, with the Wastewater Treatment Plant being in the center of the site. She explained the Plant received waste from various ongoing operations on the property.

Ms. Staigerwald noted the meeting format is slightly different from past meetings with an initial brief presentation to provide some background information, followed by a poster session for a half-hour, and then those interested were invited to come back for a round table discussion for more comment and input on the sampling and analysis approach.

Ms. Staigerwald next presented the overall strategy for the Wastewater Treatment Plant investigation—"Using their authority under DERP-FUDS, the Corps will investigate and respond to potential adverse environmental impacts from past Department of Defense activities to support the current and planned future land use of the area of the former Wastewater Treatment Plan at the former Lake Ontario Ordnance Works." She noted the same strategy was used on other areas of concern as well. Ms. Staigerwald explained that in conducting the investigations and environmental response, the Corps uses a process that was developed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

Ms. Staigerwald displayed a diagram and stated it illustrated the CERCLA process. She stated it is comprised of distinct phases starting with site discovery and moving through investigation and, if necessary, remedial design and remedial action. She continued explaining the process is not specific to the LOOW Site, but is used at all hazardous waste sites that EPA requires some type of environmental response. She stated the process was developed by EPA. Mr. Staigerwald advised the LOOW environmental response is in the remedial investigation phase and going into the feasibility study phase. She noted the intent of the remedial investigation is to characterize the site and gain enough data to assess the risk.

Ms. Staigerwald briefly reviewed several other investigations that have been conducted to date on LOOW. She stated the Preliminary Contaminant Assessment included the Wastewater Treatment Plant, as well as some other DOD facilities operated on the property. She said there were initial limited remedial investigations which targeted different areas but also an underground waste line which was used to convey TNT waste. She advised that as a result of these remedial investigations, the Corps realized they needed a more comprehensive approach and investigation of LOOW. Ms. Staigerwald said the next step was the site-wide remedial investigation. She explained Phase I and Phase II targeted multiple areas of concern across LOOW, and the reports for these phases are available for public review. She noted Phase III is recently completed which targeted the underground utilities, and the report is under final review and due to be available soon. Ms. Staigerwald explained another outcome of the investigations is the discovery of some underground storage tanks. She said most of the tanks have been removed, and a closure report is being prepared. She noted one of the tanks was on the Wastewater Treatment Plant property.

Ms. Staigerwald continued discussing outcomes of the previous investigations. She stated there had been an interim removal action of the underground TNT waste lines which had been completed several years ago. She explained some of the areas of concern had been combined into exposure units. She said 10 exposure units had been identified, with areas being combined based on history, contaminants, and proximity to one another, and this combining has helped facilitate the risk assessment. Ms. Staigerwald advised the Phase III report and risk assessment is due out soon, and includes data from Phase III as well as data from Phases I and II. Ms. Staigerwald said another outcome was that more information is

needed on the Wastewater Treatment Plant before it could be considered fully characterized and a risk assessment performed.

Ms. Staigerwald next provided some previous investigation results for surface soil samples on the Wastewater Treatment Plant property. She first discussed features of the Wastewater Treatment Plan noting there is a partially demolished acid neutralization building that received acid from some of the other areas on LOOW, a pumping station to the south that received sanitary sewage, a tank that was a settling tank, and to the north and south there are sludge beds. She pointed to a linear feature on a site map and explained those are the side-by-side TNT waste lines which have undergone an interim removal action and have been closed in place. She explained the lines are still there but have been cleaned. She showed the location of where there had been a mixing house at the terminus of the TNT lines which was the final spot where all the waste went through a thirty-inch outfall line and discharged to the Niagara River. She advised the mixing house was removed as part of the interim remedial action. She noted the area to the left of the Wastewater Treatment Plant is a separate exposure unit known as the Vicinity Shops which had shops such as the paint shop and fabrication shop. Ms. Staigerwald pointed to an area on the map and explained that as the discussion proceeds on the sampling and analysis approach will be concentrating on the Wastewater Treatment Plant area.

Ms. Staigerwald reviewed the color coding and symbols on the map, noting the diamond shape represents samples sent to the laboratory for analysis; red indicates volatile organic compounds; yellow indicates semi-volatile organic compounds. Ms. Staigerwald emphasized that a red or yellow symbol only indicates the compound was detected and not necessarily that the concentration detected exceeded a risk screening criteria.

Ms. Staigerwald showed a similar map and noted it depicted the sub-surface sample results. She pointed out there are not many samples for the Wastewater Treatment Plant which is the reason for the Phase IV investigation. She noted the blue symbols indicate locations where laboratory analysis exists for samples collected as part of the Phase III investigation but were very specific to the underground utility lines. She explained during the Phase IV investigation they will be looking for information from the more distal areas of the Wastewater Treatment Plant area.

Ms. Staigerwald turned the meeting over to Mr. Sean Carney to present the sampling and analysis approach developed thus far.

Mr. Carney introduced himself as a contractor for the Corps and stated he is with the firm, ERT.

Mr. Carney explained a variety of steps are involved in developing a successful remedial investigation and referred to a list of some of the steps displayed on the screen. He explained the project is currently at step two, develop project planning documents. Mr. Carney said he would be providing some ideas for the sampling and analysis plan and would like feedback on those ideas. Mr. Carney used a map of the area to show the location of the Wastewater Treatment Plant.

Mr. Carney displayed a historic photograph of the site showing what the site looked like circa 1944. He pointed out several of the structures Ms. Staigerwald had mentioned including the partially demolished acid neutralization building. Mr. Carney reiterated Ms. Staigerwald's statement that this Phase IV remedial investigation will not focus on the Vicinity Shops as they were fully characterized during the Phase I and Phase II remedial investigations and showed on the photograph where the Vicinity Shops are located. He noted a ground scar coming from the northeast and transcending the property is the TNT waste line. He advised the current plan is proposing some sampling along that line although the interim remedial action has already taken place.

Mr. Carney said a conceptual site model is one tool used in developing a remedial investigation strategy. He showed a graphic of a conceptual site model and noted it was not specific to the Wastewater Treatment Plant. Mr. Carney said he was providing it to show some of the tools used. He explained the objective is to acquire adequate information, including looking at any potential receptor (such as humans) and all constituents at the site and any potential receptor pathways that may cause unacceptable risk. Mr. Carney acknowledged the graphic is fairly complex and invited anyone with any questions to see any of the technical team during the poster session or round table to re-visit and discuss further.

Mr. Carney explained that in developing and brainstorming ideas for the remedial investigation, objectives were developed to measure success. He stated the objectives are to fully characterize the nature and extent of constituents at the site and assess those constituent levels in relation to potential ecological and potential human heath risks. He added the third objective is if risks are found to be present, the investigation will have acquired enough information to estimate the amount of impacted media and to take further action to assess those areas.

Mr. Carney said multiple activities have been brainstormed to complete the remedial investigation. He stated the first is site preparation which will include mobilization, vegetation clearance to access sampling locations, and the accumulation and pick up of debris, such as fallen trees and steel debris, so the debris does not inhibit the sampling approach. Mr. Carney said the next activities will be to conduct field screening and confirmatory sampling along the TNT waste line within the Wastewater Treatment Plant property. He explained the next step will be to collect surface and sub-surface soil samples, and if necessary, groundwater samples to fully characterize contamination at the site. Mr. Carney continued explaining that at this point they are proposing the samples be analyzed for various analytes such as metals, volatile and semi-volatile organic compounds, pesticides, explosives, and polychlorinated biphenyls, more commonly known as PCBs.

Mr. Carney stated that EPA advocates using one of a variety of sampling approaches when designing a remedial investigation. He said that to be conservative two sampling approaches have been proposed--a systematic sampling approach and a biased sampling approach.

Mr. Carney explained a systematic sampling approach is an unbiased characterization of a site site-wide. He continued explaining samples are collected at regular intervals using a grid system.

Mr. Carney displayed a figure depicting the grid system and noted the figure was also in the handouts as Figure E. He pointed out the locations of the Wastewater Treatment Plant, tanks, and sludge beds. Mr. Carney stated the green dots represent proposed systematic sampling locations where surface and sub-surface soil samples would be collected and analyzed for the parameters noted on a previous slide including volatile and semi-volatile organic compounds, metals, explosives, pesticides and PCBs.

Mr. Carney advised ideas were also brainstormed for a biased sampling approach as they are trying to be conservative and comprehensive. Mr. Carney explained that a biased sampling approach uses historic information and knowledge of the site to pinpoint locations which have the highest potential for impacts and to collect samples from those areas, for example, areas where there were drums or knowledge that people had stored things in a particular area. He continued explaining the biased sampling approached uses non-random sampling locations. Mr. Carney displayed a figure showing the proposed biased locations to be sampled. He referred to Figures F and G in the handout which he stated are nearly identical, with Figure G showing a historical photo overlaid with the proposed sampling grid. He stated one example of a biased sampling location is just to the east of the northern sludge bed there is a purple dot which indicates a PCB surface soil sample. He continued that during a review of historic photographs a transformer was noticed in this location. He stated that during that time it is likely PCB-laden oil may have been used, the transformer may have leaked, and PCBs may still be in the surface soil. Mr. Carney said if anyone had any questions about the proposed locations, he would be glad to discuss further during the poster session or round table discussion.

Mr. Carney referenced his earlier mention of taking the opportunity while they are in the field to re-visit the TNT waste line. He said a two-pronged sampling plan is proposed--a systematic field screening sampling which would identify the presence or absence of TNT residue and then a biased sampling approach. Mr. Carney noted Figure F shows the general TNT line tailing off at the Wastewater Treatment Plant. He restated that what is being proposed is a series of systematic sampling locations for which a field screening technique will be used to provide information on the presence or absence of TNT residue. He said based on that information, they would allocate biased sampling locations. He pointed to a location on the figure and said if the field test indicates TNT residue, they would allocate a biased sampling location at that point. He noted a surface and sub-surface sample would be taken and sent to a laboratory for analysis.

Mr. Carney said once all the field activities have been completed, all the samples collected, and all the laboratory analytical data returned, the information is passed on to risk assessors to perform human health and screening level ecological risk assessments.

Mr. Carney advised the next step is for the Phase IV remedial investigation report to be developed, including all activities performed at the site, the analytical data received on the samples, and also the human health and screening level ecological risk assessments. He added that the report will make some conclusions and recommendations and provide the path forward. He explained there are two distinct pathways--no potential risk and no further sampling or, potential risk with the constituent levels and further activity is warranted which may include development of a feasibility study.

Mr. Carney concluded by saying these are the ideas brainstormed thus far and comments and feedback are desired and welcomed during the poster session and round table.

Ms. Kreusch explained the layout of the poster session and said the first station explains the CERCLA/DERP-FUDS process, the second station is about the status of LOOW, and the third station is on the proposed sampling approach. Ms. Kreusch read the list of technical staff who would be at each poster station. Ms. Kreusch reminded attendees there are comment cards in the back of the room and an easel where topics for future meeting agendas could be posted. She encouraged everyone to write down their suggestions.

The presentation portion of the meeting concluded at 6:31 p.m., and the poster session began at that time.

POSTER SESSION

During the poster session portion, the technical team was available to interact with community members one-on-one. The following is a list of key concerns, questions, and comments noted during the poster session.

- Questions were asked and answered to clarify the CERCLA process and the remedial action process.
- Questions were asked and answered to clarify the location of buildings on the site, including the Wastewater Treatment Plant.
- Questions were asked and answered regarding the underground storage tank removal project.
- Questions were asked and answered regarding the DERP-FUDS program and HTRW projects.
- Questions were asked and answered regarding the proposed sampling at the Wastewater Treatment Plant including clarification on the legend and markings, the difference between biased and systematic sampling, the proposed sampling locations.
- Questions were asked by and answered for a local newspaper reporter regarding the Niagara Falls Storage Site remedial investigation status and any plans for additional sampling. He advised an article would most likely run in the Ontario paper this coming weekend and the following week in the Sentinel.
- A concern was raised about former LOOW areas open to the public that might not be fully cleaned up and about which the public may not have sufficient knowledge.

The poster session concluded at 7:10 p.m., and the round table discussion began at that time.

ROUND TABLE DISCUSSION

Ms. Kreusch began the round table discussion by thanking those who stayed for this portion of the meeting. She suggested those individuals sitting at the table utilize the table tent cards and write their name on the front side. Ms. Kreusch provided a mailing address and an e-mail address for comments on the Wastewater Treatment Plant remedial investigation sampling and analysis program and requested comments by April 27 so the

field work can commence this summer. She stated the contact information is also available on the business cards that are available on the back table.

Ms. Kreusch reviewed a list of operating principles for the round table discussion: be courteous; turn off cell phones and pagers; listen respectfully; one person talk at a time; raise your hand when you wish to speak and wait to be recognized; state your name for the recorder; give everyone a chance to comment; if items cannot be addressed tonight, they will be put in the parking lot and will be discussed at future meetings. Ms. Kreusch asked for any comments on the operating principles or any additions; none were offered.

Ms. Kreusch introduced Mr. Kent Johnson from the New York State Department of Environmental Conservation (DEC) who had requested an opportunity to share some information.

Mr. Johnson introduced himself as working out of the Albany office and having been involved with the site for 22 years. Mr. Johnson noted he wanted to take the opportunity to let the community know what the State is doing and what the State sees out at the site.

Mr. Johnson showed photographs of the Wastewater Treatment Plant from 1944 and of the acid neutralization building from about two years ago.

Mr. Johnson displayed a list of DEC activities and stated they continue to work with the Restoration Advisory Board. He said they have been having meetings with the Corps of Engineers, North Atlantic Division, which is the hierarchy, and had observed the field work conducted in the fall on the underground storage tank removals. He added they have also been lobbying for funding.

Mr. Johnson said when the Restoration Advisory Board had received a letter stating that the Board would no longer be recognized, he and his higher-ups had several meetings and sent letters to the Corps expressing their difference of opinion regarding the Board's status. He stated his office continues to participate with the Restoration Advisory Board and their various committees and let them know their thoughts.

Mr. Johnson said that since last fall, they have had some contacts with the General who runs the North Atlantic Division. He noted that while the Buffalo District is part of the Lakes and Rivers Division, money for LOOW comes from the North Atlantic Division. Mr. Johnson advised the Governor's office had some meetings with General Semonite's office, and General Semonite was not familiar with LOOW. Mr. Johnson said a briefing was sent to General Semonite in December on the LOOW project and its challenges, and the State continues to try and advance dialogue with the General to better achieve funding and progress on the project.

Mr. Johnson stated that the Corps had received funding specifically to remove underground storage tanks last fall, and the DEC provided 100% oversight. He stated someone was present during the entire digging process. He commented the tanks were in very good condition considering some of them were 50 years old.

Mr. Johnson said his department has had some contacts with the Governor's office. He said last September, given the State's current fiscal situation, his department was asked for ideas as to other ways for the Federal government to supply money to New York State. He said his office tried to get additional funding for LOOW under DERP and FUSRAP (Formerly Utilized Sites Remedial Action Program). He said in December his office was asked about ideas for utilizing funding under the stimulus package and again proposed the DERP-FUDS program and FUSRAP program to help remediation of this project. He noted that the package had $100 million for FUSRAP but no specific money for FUDS.

Mr. Johnson next discussed the history of investigations noting there had been seven investigations. He stated the 1983 report was done under FUSRAP, and based on that report, in 1984 the Department of Energy did a remedial action effort. He said in 1992 the Preliminary Contaminant Assessment (Phase I and Phase II) was done. Mr. Johnson stated the TNT waste pipeline removal action occurred in 1999 where the contractor, Radian, cut a hole, accessed the line, stuck in about a 200-gallon tub underneath the line, pressure-washed the line, pumped out sludge, and cleaned out those sections of the line. He said one of the lines definitely had TNT residue because there was red water which is indicative of a nitrogen-bearing compound, and the other line was full of black oil. He referenced Ms. Staigerwald's earlier presentation which discussed the Phase II remedial investigation performed by EA Engineering in 2001. He said during the next investigation they looked at some areas where TNT was found; one area was the contaminated material storage area. He added the Wastewater Treatment Plan had also been looked at, and there are some things this investigation needs to follow up on such as a sample where they found a high level of explosives. Mr. Johnson said the last investigation was the 2006 underground utilities investigation.

Mr. Johnson showed some photographs from two years ago starting with a photograph of the foundation of the Wastewater Treatment Plan which he stated is at least 10 feet deep, water filled and containing debris; Mr. Johnson said he liked to refer to the location as a death trap. He pointed out the upper part of the building and said the foundation is pockmarked from automatic weapons where someone has used it for target practice. He showed an asbestos-wrapped pipe, open manholes, a water-filled pit, and the foundation of a pumping station filled with debris. He stated he is most worried about an area, looking to the west, where there is no gate and anyone can walk onto the property. Mr. Johnson stated he had visited the property that day, and there was evidence of four-wheel drive vehicles recently being in this area. He stated he was concerned kids could be having nighttime parties and they could fall into the pits.

Mr. Johnson provided some comments on the current proposed investigation stating that one requirement is the need to secure the property and stop trespassers. He said the investigation also needed to characterize the structures. He noted the pits are water-filled and are source areas, and the investigation needs to develop information on what is in the waste and the sludge in the pits and provide sufficient information to demolish those structures. Mr. Johnson said this investigation should also address some of the previous investigation issues. He stated the 2003 investigation found up to 29% of TNT in one sample in an underground pipeline. He said an excavation had to be closed as elevated gamma readings were collected. Mr. Johnson stated another area that needs to be addressed in the Niagara Falls Storage Site where the remedial investigation found elevated uranium in groundwater at

the northwest area. He said a groundwater well needs to be installed to understand if there is any groundwater contamination on this property (the Wastewater Treatment Plant), and there needs to be a thorough investigation of the property itself.

Mr. Johnson said as the schedule stands now it will be 10 months after demobilization before a report is available. Mr. Johnson expressed his frustration with the length of time the cleanup is taking, stating he has been working on it for 22 years. He said he would like to see it cleaned up, and there is a need to get sufficient data in a timely manner so if any funding becomes available in the military budget the money does not expire or disappear. He said if a project is not ready to spend available funding, the funding goes to the next project in line.

Mr. Johnson discussed some administrative hurdles. He noted the project is a FUDS investigation, and therefore the Corps of Engineers cannot look for radiological materials. He stated this is statutorily mandated. Mr. Johnson stated it is a closed vicinity project under FUSRAP and without Congressional action to re-open the project it cannot be looked at under FUSRAP.

Mr. Johnson referenced the INPR, Inventory Project Report, which characterizes what is eligible for the Corps of Engineers to work on and what is not eligible. He said based on the INPR received last year the demolition of the Wastewater Treatment Plant is ineligible which raises another problem as it represents a safety hazard. Mr. Johnson said he was recently made aware of an Office of Economic Adjustment which can earmark funds for projects that are ineligible. He explained a Congressperson can find alternate funding for municipalities to take care of areas when found ineligible under standard DOD programs. He said DEC is working with the Congressional delegation and Corps to explore this avenue.

Ms. Kreusch asked if anyone had any comments on Mr. Johnson's presentation. Mr. Bruce Sanders commented on the stimulus package mentioned by Mr. Johnson and said he wanted to make it clear that at this very moment the Corps is working on a roll out plan for corps projects that are encompassed in the recovery packet. He said he does not know yet what will be included and discussions are still going back and forth between Corps headquarters and district offices. Mr. Sanders said the information will be released as soon as it is confirmed to congressional, stakeholders and partners. He advised interested parties should go to the web site for the Buffalo District and there is a link on the first page for the Recovery Act; he advised the business cards on the back table had the web site address. He said the link will go to the site with the latest information and as soon as the list of projects is released, the information will be on that site. He suggested checking the web site every day to keep up to date with the information.

Ms. Amy Witryol said she was shocked by Mr. Johnson's presentation as two weeks ago on a conference call with Mr. Johnson he had stated securing the Lewiston property was "the town of Lewiston's problem." She said she had since learned that under health and safety the Corps is going to be welding closed some of what Mr. Johnson referred to as a death trap. She stated she was very disturbed that DEC would publicly advertise dangers on that property as DEC has done nothing to help get the property secured during the past two years. She said two weeks ago Mr. Johnson had advised on the same conference call he had not heard anything from the Corps. Ms. Witryol said it was evident tonight that there have been

behind closed doors conversations on funding and objectives for the whole site which to her knowledge have not been reported to the Restoration Advisory Board and did not strike her as DEC participating in good faith with the Restoration Advisory Board.

Ms. Kreusch then invited Dr. Bill Boeck to present his slides.

Dr. Boeck introduced himself as Chairman of the Radiological Committee but stated, since the material he would be presenting had just showed up for public viewing last week, what he will be presenting are his personal opinions.

Dr. Boeck showed a photograph and stated it included features discussed earlier in the meeting including the vicinity shops, railroad sitings and buildings, and noted all of these areas were operated together. He stated although there is a fence line dividing the Niagara Falls Storage Site from the LOOW property, he would be talking about the site as a whole.

Dr. Boeck displayed a series of photographs and pointed out on the government side was the welding shop and the machine shop. He noted on the Lewiston side there is an electrical shop and another shop. Dr. Boeck said the first impression he wanted the attendees to have is that these are substantial buildings, and while temporary, are substantial buildings used for a number of purposes.

Dr. Boeck showed a photograph of a warehouse on the Niagara Falls Storage Site, a railroad site with a pipe unloading platform, and a substantial concrete pad.

Dr. Boeck referred to a graphic of the site and again noted locations of buildings and concrete pads, shops, and the Wastewater Treatment Plant.

Dr. Boeck referenced a section from the aerospace report and stated the report had multiple designations for the same buildings, using both numbers and names. He said the welding shop contained capital waste which is different than what is on the rest of the site as it is reactive by-products. Dr. Boeck said there was an experimental reactor in the Albany area, and they developed a process for separating plutonium from other reactive byproducts. He stated waste materials went to this site for some period of time, and then virtually all of them were moved to Oak Ridge National Laboratory. Dr. Boeck said the report referenced the use of six buildings, three on the Niagara Falls Storage Site and three on the Lewiston property. He then showed a view of the property, noting the separation did not exist at that time, and pointed out the location of the six buildings.

Dr. Boeck referenced a description from the same report and noted a few things are important. He said the buildings used for storage are marked on the diagram and are the numbers of buildings previously referred to.

Dr. Boeck referenced a section from the report that says the Baker-Smith buildings were in a state of disrepair and without adequate fire protection. He noted the report suggests waste from one shop be moved to another location. He said the amount of waste was 350,000 pounds; therefore, a large amount of material came in and went out by rail line.

Dr. Boeck referenced a section from the report that noted crates were disintegrating to the point where markings were undecipherable. He said the report stated certain buildings were released for unrestricted use, while others were burned to the ground. Dr. Boeck stated Cesium 137, a by-product of uranium fission, was identified in several different studies.

Dr. Boeck referenced notes excerpted from government files. He stated a report noted the storage of wastes could include the waste water sewage treatment plant at the former LOOW as the building has been stripped of plant operating facilities such as pumps and motors and is now proposed to store capital combustible waste. Dr. Boeck said this is an indication they planned to do it, and he believes there is some radiological evidence they did do it.

Dr. Boeck stated that on the government side of the fence they located and made cores in an area. He pointed to an area and stated the spot is in between three buildings where radiological capital waste was stored.

Dr. Boeck noted the study says there is no evidence of contaminated waste burial or storage on Property X. Dr. Boeck stated he had just shown such evidence so apparently the consultant who wrote the report was not shown the appropriate documents. Ms. Kreusch asked Dr. Boeck if he could provide the date of the document he was referencing. Dr. Boeck responded it is the report that was used to close off the radiological examination of Property X. Ms. Kreusch asked if the report was done for DOE, and Dr. Boeck confirmed it was a DOE report.

Dr. Boeck continued to reference sections of the report which indicated previous runoff residues as indicated by source contamination in the ditch. He quoted the report as stating elevated levels have been noticed in several buildings at the sewage plant, and the source of these higher levels may be naturally occurring in rocks used as fill and for cover of roads. He said the ongoing theme is it is someone else's problem.

Dr. Boeck referenced a study of Property X noting that the areas they examined were near the Wastewater Treatment Plant, primarily paved areas, but they did not see anything up in the area where the waste was actually stored.

Dr. Boeck said there is a spot that was of interest next to a loading platform. He pointed out some contaminated areas found. Dr. Boeck said there is documented evidence that radioactive materials were stored in buildings, but no indication concrete pads or buildings were checked very closely. He noted that examination of the land next to one pad stopped at the fence line and that while the rest of the pad was probably used, no one looked at the other side of the fence because of jurisdictional issues.

Dr. Boeck noted sections there were actually remediated and excavated on Property X and advised Property X is the Lewiston property. He stated there was an area where they found isotopes of Cesium 137 and noted other isotopes and radium were present and associated with the slag used for the road bed. He said no Strontium 90 was found which may be a significant point.

Dr. Boeck noted radioactive material in barrels and box cars came in and off the site by rail, and therefore the railway should have been examined for potential spill locations. He

advised if the ballast has some natural radioactivity they did not look any further, and there could have been spills.

Dr. Boeck stated that from the documents prepared to date there is an indication the right-of-way for the railroad includes 63,000 cubic yards of slag ballast and the roads 77,000 cubic yards. He said the US government procured this material and placed it on site; therefore, they should have responsibility for it. Ms. Kreusch asked which document Dr. Boeck was referencing, and he responded it came from the report obtained last week.

Ms. Kreusch asked if anyone from the Corps would like to comment on Dr. Boeck's slides.

Mr. Kowalewski said he could comment in a general sense on the status of Federal action regarding the radiological concerns. He stated the Corps does not have the authority, funding, mandate or ability to re-open an investigation concluded by the Department of Energy (DOE) such as the Vicinity X Property Report. He advised that until such time as evidence can be brought forward and presented to DOE, and DOE directs the Corps to re-open an investigation, the Corps can listen to concerns and do whatever possible within their authority to help the community. Mr. Kowalewski stated that during chemical investigations they have adopted a standard practice; whenever field work is conducted on the LOOW site, there is a radiological safety program. He continued if samples are being collected or digging is occurring, a health physicist is involved to look for and detect any radiological material and deal with it should it be found. Mr. Kowalewski stated there are limits of what can be done radiologically during the planned work this year. He added the Corps has been aware of physical safety hazards for some time and have included as much as they can in the projects this year to make the site safe, such as welding steel covers and removing some debris. He said he recognizes it is not a complete solution, but the Corps does not have authority to do more. He said the Corps is trying to address related issues to their work for the benefit of the community.

Ms. Kreusch asked for other comments and questions.

Mr. Johnson said he saw the scope of work included the collection of archive samples for possible radiological analysis and asked for confirmation they would be collected and archived. Mr. Jeff Hall responded that the work includes screening all soil samples for radiological components, and if the level detected is two times above background, the sample will be submitted for laboratory analysis. Mr. Hall said sufficient quantities of soil will be collected, so that in the future if a program such as FUSRAP wanted to analyze the sample, there will be sufficient material to do so. Mr. Hall advised FUSRAP is going to split sediment samples from the western drainage ditch and any groundwater samples that are taken. Mr. Kowalewski reiterated the Corps will be taking samples and holding them in reserve so down the road they can be used to conduct analysis for radiological issues. Mr. Kowalewski said the Corps is always open to having the State or County or anyone who wants to split samples and do their own analysis to verify the Corps' results.

Mr. Keith Fox stated he was with the school board and particularly interested in the sampling of the western ditch. He asked if any other agency would have access to those samples or their results. Dr. Karen Keil responded that the samples will undergo full suite

chemical analysis, and the ditch samples will be analyzed for radiological materials. She stated all results will be released and available to the public. Mr. Kowalewski added that all data is published in the report and reiterated the opportunity for any agency who is interested to split the samples and run their own analysis. Dr. Keil noted that once verified and validated the data can be released ahead of the full report. In response to a question from Ms. Kreusch as to whether the information can be put on the web site, Mr. Kowalewski said an announcement will be put on the web site when the raw data is available and anyone interested can request a copy of the data. Dr. Keil clarified that it is the west ditch being sampled, not the southwest ditch.

Ms. Kreusch asked for any other questions and offered to put up the sampling location map if anyone had questions about the location of the samples to be collected.

Ms. Amy Witryol thanked Dr. Boeck for presenting his information. She stated there is additional information Dr. Boeck has not yet had an opportunity to look at that shows not all waste left the site, particularly the combustible waste, but the point is well taken in terms of the potential and number of vicinity properties on the LOOW site. Ms. Witryol said the community appreciates what the Corps has done on this site under health and safety in the past, and she encouraged them to continue in that vein. She said with respect to the detail of the sampling it would be more valuable to actually have a reasonable amount of time to comment on the draft or final sampling and analysis plan before the field work commences. She explained this would allow them to see what samples are getting full-suite analysis and which may have some radiological assessment for health and safety purposes. Ms. Witryol emphasized that it is critical for the community to be able to help ensure taxpayer funds will be used most effectively, and it would help to have the opportunity to make some minor adjustments in analytes or depths before the work is done and money expended. She requested, to the extent possible, that the community have the same opportunity for review as DEC.

Ms. Staigerwald said she could provide some clarification on the sampling. She advised that every sample has been proposed for the full analytical chemical suite, but not every sample will have radiological analysis. She said each of the proposed samples will undergo analysis for volatile organic compounds, semi-volatile organic compounds, metals, pesticides, explosives, and PCBs. Ms. Staigerwald noted samples are sometimes collected and analyzed for a particular marker compound; however, the sampling program being proposed is not set up in that manner.

Ms. Amy Witryol asked if all the sub-surface soil samples would be collected at the same depth. Ms. Staigerwald responded they would not be collected at the same depth but would be biased. She explained they will be using equipment to collect a sample along the entire length. She stated photo-ionization equipment will also be used to test for the presence of volatile organic compounds. She continued explaining that if staining is seen at a specific interval, the sample will be collected from that location. If no indication of contamination is present, the sample will then be collected from just above the groundwater table where contamination tends to be present, typically about 10 or 15 feet deep at the site.

Ms. Amy Witryol asked if depending on what is found with the soil sampling, would any consideration be given to some groundwater well installation which might help integrate some of the fate and transport issues and leverage existing knowledge.

Ms. Staigerwald explained activities are planned to optimize available funding. She said sub-surface soil data will be compared to soil screening levels which will be specific to the Wastewater Treatment Plan to determine whether there has been an impact to the soil and whether contamination might leach out of the soil into groundwater. She noted if there are exceedances, the field crew will re-mobilize and install groundwater wells as necessary.

Ms. Amy Witryol asked how the radiological data will be used to the extent there is sampling under the health and safety protocol.

Mr. Staigerwald responded that prior to field work, a sampling plan, health and safety plan and radiation safety plan will be developed. She explained these plans will contain what will be done for health and safety screening such as a dosimeter-type analysis or Geiger counters. She said every sample will be screened not just for protection of workers, but if there is any detection two times above background, the FUSRAP team will be called to conduct an assessment.

Ms. Amy Witryol reiterated she would like to see the draft or final sampling plan before the field work starts to be able to comment. Mr. Kowalewski said the plan will be similar to the underground storage tank removals and underground utilities remedial investigation in terms of similar technologies, methods, and limits. Mr. Kowalewski confirmed he would send the plan out for review before mobilization.

Ms. Fox noted that the presentation had mentioned six underground storage tanks were removed from the site. He said he thought there were 11 tanks and asked what happened to the other five tanks.

Mr. Hall responded that there were a total of 11 tanks, with four suspected in the Air Force plant in the Chemical Waste Management area, one in the Wastewater Treatment Plant, and the remaining six part of the old Nike base on the far eastern side of the site. He said the tank was found at the Wastewater Treatment Plant, and five tanks were found at the old Nike base. He said evidence of the sixth tank at the Nike base was based on a pipe which turned out to be an aboveground tank. He noted a variety of geophysical instruments were used including EM-61 that showed several anomalies which were thought to be underground storage tanks. He explained test pits turned up buried pieces of concrete and no other tanks.

Mr. Scott King expressed his thanks for the meeting and the effort. He said the information presented on the sampling plan was too general as it did not present the rationale behind the selection of the proposed sampling locations. He said he assumes the rationale will be in the sampling plan, and it is important for the community to look at the sampling plan and understand why locations were chosen and the rationale to support the number of samples and locations selected.

Ms. Kreusch asked Mr. Carney if he could provide additional information to address Mr. King's comments. Mr. Carney said the systematic sampling approach is based on regular

intervals to provide a broad characterization of the site. He explained the rationale is the samples are spaced at 100-foot intervals. He said the biased sampling uses data from previous investigations to determine the sampling locations. Mr. Carney referred to Figure F in the handout and the various color coding and noted more details will be in the project planning documents. He stated the orange circles represent locations selected because of the presence of surface anomalies in historic photographs. He explained the yellow circles are in the western drainage ditch and were selected because of the previous comments made by Ms. Staigerwald. Mr. Carney said the red circles represent where field screening samples were collected during Phase I, and samples are now being collected for laboratory analysis to confirm or deny the field screening results. He stated samples will be collected from locations where transformers were present. Mr. Carney noted the grey circles are two more samples being collected from within the sludge beds. He said the other biased point will be located in an overflow drainage ditch from the acid neutralization building. Mr. Carney said this was a short explanation of the sampling rationale, and the project planning documents will spell out in detail why the sampling locations were selected.

Ms. Staigerwald added that Figure F on the south end shows an additional biased sampling point where the drainage ditch exits the Niagara Falls Storage Site, and the FUSRAP team will be splitting these samples. Ms. Amy Witryol asked for clarification on which samples will be split with FUSRAP. Ms. Staigerwald stated it would be the two samples from the western drainage ditch and two locations on the systematic grid near the western drainage ditch.

Mr. King emphasized the importance of having a scientific basis in the report for the selection of these locations and stated the plan needs to be defensible. He stated it would also be important in the collection of data and data reporting to follow the format used in the past and which would allow the data to be used again. Dr. Keil responded that the data will be in the same format.

Mr. Paul Dickey, Niagara County, Department of Health, commented that Dr. Boeck had presented data from old government files that show how structures were used for storage and data that imply these areas were not investigation for radiation contamination but properties were closed and are no longer being investigated. He said it had also been stated by Mr. Kowalewski that if there is sufficient evidence the sites could be re-opened for further investigation. He asked how much evidence needs to be produced for the Department of Energy to re-open and who would make such a request. He asked if the Corps would accumulate the information and bring it forward or is up to a citizen to request.

Mr. Kowalewski responded that the Corps does not have the authority or funding to assemble such a recommendation. He said it would have to be a party other than the Corps who would petition DOE to re-open. He noted from a legal and process perspective the Corps cannot make the petition to DOE; he said any local or state environmental agency or combination thereof could make the request.

Mr. Dickey asked if the historic files present an adequate case. Ms. Amy Witryol said she had asked Kent Johnson from DEC if they could petition DOE a year and a half ago, and he had advised it was not a good idea. She asked if DEC could elaborate or had any change in its position.

Mr. Johnson responded that the decision would be made by DEC's radiological program. Mr. Tom Papura from DEC's radiological section responded that having a couple documents saying there may have been storage of capital material in a particular area would have to be looked at in conjunction with the Vicinity Property documents from DOE. He continued the information would have to be reviewed to see if there were any surveys done and did any such surveys indicate any elevated gamma readings and were any remedial actions performed to determine how it all fits together and be sure the information is not taken out of context.

Ms. Amy Witryol said she would take Mr. Papura's response as "no" but would respectfully request DEC review the information and get back to the County Health Department. She encouraged DEC look at the disparity of DOE work from 25 years ago as compared to the excellent work done by the Corps in recent year which found more than surveys did previously. She said if DEC is open and willing to follow up or if DEC's view is regardless of what you are looking at there is no reason for DEC to make a case to DOE. Mr. Papura responded that he has looked at various documents over time and that it is always good to go back and look at these things.

Mr. Fox said he wanted to thank Mr. Johnson from DEC and Mr. Kowalewski from the Corp for doing a fantastic job for bringing things forward at the site. He said the Corps is doing a lot more than ever before, and he wanted to say thank you.

A reporter from the Sentinel asked about the accessibility and whether the Corps has plans to cordon off the site. He commented that he drives by the site every day, and it is open to anyone. He asked with the perceived dangers would it make sense to close off the area. Mr. Kowalewski said the Corps has been working in close coordination with the Town of Lewiston who owns property in trying to come up with potential solutions. Mr. Fred Newlin, supervisor for the Town of Lewiston, added that the Town has made it known that this would be their biggest priority for any funding from the stimulus package so part of the remediation plan would involve cordoning off and putting up signage. He said the town has been reluctant to put up fencing since no one can tell him exactly what is on the land. He added he will know by the following Monday about the possible funding.

Mr. Dicky asked what the rationale is for separating the Wastewater Treatment Plan from the vicinity properties with respect to the exposure units. He commented that he is seeing a lot of historical connection between the vicinity properties and the Wastewater Treatment Plant, and yet the investigations seem so separate.

Ms. Staigerwald said initially there were some questions about certain waste going to the Wastewater Treatment Plant not being DoD waste, and the Corps did not want to delay the investigation of other areas until this issue was resolved. Ms. Kreusch asked Ms. Staigerwald to repeat her answer to be sure it was understood. Ms. Staigerwald said during the Phase I and Phase II investigations, there were limited samples collected for the Wastewater Treatment Plant. She said the samples were only analyzed for DoD marker compounds as they were initially not sure if they were going to include that area for full suite analysis since it was known some other entities had impacted that area which might make it ineligible for DoD environmental remediation funding. She said there was no evidence of the Vicinity Shops having been impacted by other entities so they could move forward with investigation of that area.

Dr. Keil added that part of the rationale for creating the exposure units was the use and history of the site and what kind of contaminants might exist at that area. She said the Wastewater Treatment Plant received waste from TNT lines and sanitary sewer, where the Vicinity Shops were used for maintenance, repair or painting and therefore different sources of contamination. Dr. Keil explaining the grouping considered the type of potential contamination and not just geographic proximity.

Mr. Fox commented that if a problem is known and DoD has responsibility for at least a portion of it, can't we just get it done. Dr. Keil said the reports from Phases I, II and III will be coming out shortly, and the Corps is now moving ahead with the Wastewater Treatment Plant so work is progressing. Mr. Fox said it looks like things are moving in the right direction.

Mr. King referenced Figure B and asked why the mixing tank is in one exposure unit and the rest of the Wastewater Treatment Plan is in a different exposure unit. Ms. Staigerwald responded that the mixing tank is no longer present as it had been removed as part of the interim removal action. She said samples will be collected along the TNT line so will have that data as well.

Ms. Amy Witryol thanked Ms. Staigerwald and Liza Finley for doing a superb job for the Corps on this site for many years. She also thanked the Town of Lewiston for working with Mr. Kowalewski for the better part of a year, with no help from the State, to get the property secured. She said she was disappointed that DEC stood up for the first time tonight to say securing the property is their prime worry. She recognized the collaboration between the Town and the Corps on the problem. She again thanked the Corps for bringing their ace contractors up to Lewiston to talk to the community.

The reporter from the Sentinel referred to the 30-inch drainage where some portions were filled in and some portions collapsed and asked if it was going to be re-examined. Ms. Staigerwald pointed out the 30-inch outfall line and noted the map only shows the portion in the boundary of LOOW, but the line extended to the river and transversed the school property. She showed on the map the location of the southwest drainage ditch. She said the line was included in the Phase III remedial investigation and risk assessment and that report will be coming out in the next month or so. She advised sub-surface soil samples were collected from under the line and where it was found, sludge and waste water from that line, and all samples analyzed for the full chemical suite. She added that sampling was also performed in the ditch where the line crossed but analyzed only for DoD marker compounds.

Ms. Amy Witryol referenced some samples taken from the other side of the ditch that Kent Johnson from DEC had some concerns about at the time in terms of the analysis. Ms. Staigerwald said the first assessment was limited to DoD marker compounds, but in Phase III the samples were analyzed for the full chemical suite. Ms. Amy Witryol said if there is an opportunity to analyze samples from the drainage ditch for the full chemical suite to address the school board's concerns she would hope the Corps would keep an open mind.

Mr. Kowalewski said he is aware of the school's concern and still needs to provide the school board with an answer. He stated it is not a closed case with respect to the ditches.

Ms. Kreusch asked for any other questions or comments. Mr. Kowalewski added that if anyone did not want to speak in front of the group, they could write down any question and their desire for privacy would be respected, and the Corps would respond to their question.

Ms. Kreusch reminded everyone that comments on the sampling and analysis program are desired by April 27, and comments could be mailed or e-mailed to her. She again thanked everyone for attending and participating and said she hoped it was a productive meeting.

The meeting adjourned at 8:28 p.m.

Katrina Harris
Recorder
Bridge Consulting Corp.