

**Ravenna Army Ammunition Plant
Restoration Advisory Board (RAB)
Meeting Minutes
January 21, 2004**

1. Call to Order and Reading of the Minutes

The meeting was called to order by Mr. Mark Patterson at the Freedom Town Hall, Freedom, Ohio at 6:05 p.m. Secretary Denise Gilliam took attendance with 12 present, 4 excused and 6 absent (Mr. Kevin Cooper, Mr. Robert Daughtery, Ms. Kerry Macomber, Mr. Mark Zigmont, Mr. Milan Markov, and Mr. Earl Miller). Due to the fact that the minutes were handed out at the present meeting a motion was made for the member to go home review the last minutes as well as the more current ones, then when the RAB reconvenes both minutes can be reviewed and voted on at that time. Motion was made by Mr. Patterson, seconded by Mr. Smith and passed by unanimous vote.

2. Fuze & Booster Quarry Landfill/Ponds: Phase 1/Phase II Remedial Investigation

Mr. Patterson reintroduced the board to Ms. Chantelle Carroll of SpecPro. He stated that the above-referenced site was used as a disposal area, and a settling basin for water treatment on the post. He stated that the area was also quarried. He told the board that the Army plans to fund the rest of the project in 2004, and wants Ms. Carroll and her company to produce a final report on the site.

Ms. Carroll expressed pleasure at presenting to the board again. She began her presentation by showing the RAB members a map of the Ravenna Arsenal which depicted the location of the Fuze & Booster Quarry Landfill/Ponds. She stated that the site was in operation from 1945 to 1993. It was first operated as a quarry then a burning ground. It was used for burning sawdust munitions waste from Load Lines 6 and 11. Most of the debris was removed from the site in 1967 when the ponds were created. The ponds were established to receive filtered spent brine regenerated and sand filtration backwash water from one of the drinking water treatment plants. This discharge was regulated under a NPDES permit. Ms. Carroll showed an aerial photograph of the site taken in 1994 to show an overview of where the ponds were located.

She noted that the 40 mm Test Range was is to the right of the site and pointed out the water treatment plant as well. Ms. Carroll stated that very limited investigations had occurred at the site prior to the Phase I/II Remedial Investigation. In 1996 USCHPPM conducted a Hazardous and Medical Waste Study of the area and concluded that a Phase 1 Remedial Investigation should occur. The 40 mm Test Range was included in this study. She remarked that in 1998 the Area of Concern (AOC) was expanded to include additional areas of small settling ponds or shallow basins and debris areas to the west of the original ponds. This expanded the size of the site from 12 acres, as originally thought, to 45 acres total. Ms. Carroll returned to the aerial photo of the site and pointed out the now 12 basins. She stated that most of the basins will hold water if it rains. She stated that most of them are small with six being approximately 20 x 20 feet in diameter. All of the basins are very shallow.

In 2003 the US Army Corps of Engineers (USACE) and the Ohio EPA conducted surface water and biological research in the three main settling ponds during the Facility-Wide Surface Water Sampling Investigation. The study has shown that preliminary ecological pond health appears to be high looking at the number of plant and invertebrate species that have been found within the main pond. She noted that data analysis for water and sediment are still pending and the results from the Ohio EPA chemistry data has not come back as of yet.

Ms. Carroll explained to the board members the objectives of the Phase I and the Phase II Remedial Investigation. She stated that they were looking to determine the boundaries of the AOC, measure the AOC physical characteristics, identify and characterize sources, nature, and extent of contamination, establish a system to monitor potential off-site migration of contaminants, and to collect data for a risk screening analysis. They will be looking at surface water and groundwater, sediments, surface soils (depth 0-1 foot) and subsurface soils (depth 1-3 feet).

Ms. Carroll then explained the methods being utilized in the study. She stated that water is one of the primary mechanisms for contamination to mobilize or to be transported off of the site. Due to this 15 surface water samples were taken. Four were taken within the three main ponds, one from the overflow culvert from the main ponds, nine within the ten small basins, and one was taken where the overflow from two of the small basins ran into the drainage creek area. This area

had an incomplete levy that ran off of the site but that water was still tested. Boats were used to collect the samples in the three main ponds. Ms. Carroll showed the RAB photos of the sampling process, the small basins, and the drainage area behind or west of the basins. She stated that the small basins are very close together and hold water well. The drainage behind the ponds almost looks like a small creek, only there is no outage point.

Ms. Carroll stated that 12 groundwater samples in taken in newly established monitoring wells. Each well was developed and then sampled for VOCs, SVOCs, explosives, TAL Metals, propellants, pesticides, Chromium +6, and PCBs. The wells were slug tested. She showed a photo of a technician beginning the developing process of a well.

She noted that soil is also important to evaluate because erosion or leaching can occur and movement of the soils from storm runoff is a possibility as well. She stated that 40 sediment samples were taken throughout the ponds, basins, and drainage area. 100 surface soil samples were taken and 65 sub-surface soil samples. She noted to the RAB members that an uneven amount of surface and sub-surface soil samples were taken due to the shallow bedrock. She reminded the board that the area had once been a quarry and that was why the bedrock was so shallow at the surface. This made it extremely hard to impossible to sample all of the subsurface soil locations. Ms. Carroll showed the RAB members topography maps that depicted the elevations of the area and the sediment sampling locations. She noted that basins were not depicted on topography maps. She presented a map that showed where soil samples were taken. Ms. Carroll explained why there was a higher concentration of sampling points towards the top of the map. She explained that this done to help characterize the site where the highest known concentration of dumping had transpired.

Ms. Carroll told the board that in order to further assess the impacts to shallow groundwater and potential migration pathways six test pits for characterizing soil structure and 12 monitoring wells were installed. She stated that the process of digging tests pits was helpful in obtaining geological data that you might not encounter with just the wells. Ms. Carroll showed the RAB members a topography map depicting the locations of the test pits and the wells. She noted that the test pit locations were close to the wells so that they would mimic the geological

data you would see in a well. She showed a picture of a test pit being dug with a backhoe and explained that each pit dug was projected to be four feet wide and 15 feet in depth. However, due to the bedrock being shallow in some areas, some of the pits were shallower than others. A geologist recorded and monitored each layer of the soil that was removed. They also utilized Shelby samples to provide better geological information from each pit dug. Each soil pile could be different from each pass of the backhoe. Therefore, the soil that was removed was then placed to the side so that it could be returned to the correct stratosphere from which it was initially dug out. The next photo was of a well being drilled. She explained that in the early part of the drilling process a bucket is placed on the coring unit to prevent a lot of dust. She showed the RAB members pictures of core samples that were taken. Each layer is labeled and she noted that the layers that were deeper red in color indicated that they were closer to the bed rock [Please note here that the actual bedrock was being cored (Eileen Mohr)].

Ms. Carroll stated currently all of the soil, water, and sediment samples have been collected. A site survey of sample location has been completed and this information has been incorporated in the GIS maps. The sample data verification and validation is in progress, and the risk assessment has yet to be performed pending that information. After all of the data has been validated a finalized report will be prepared.

Ms. Carroll closed her presentation and took questions from the RAB members and the public. Mr. Smith asked about the water depth in the various ponds. She answered four and one half feet in the northern pond, which will dry up. The very center of the largest pond is about 13 feet deep. Mr. Smith stated that seeing as the area had at one time been a quarry, you would think that it would be deeper than that. Ms. Carroll replied that there probably are deeper areas; however, not all depths of the ponds were measured. She stated that some of the preliminary data has shown high concentrations of clay. Mr. Banks asked how deep the sandstone level is. Ms. Carroll replied that on the northeastern side it seemed deeper but she was not sure. She mostly hit hard bedrock within 22 feet. Ms. Long asked if the test pits were closed already. Ms. Carroll stated that they were closed right after testing so that they would not be a hazard to animals, etc. Mr. Banks stated that it sounded strange to have a mixture of clay and sandstone. Ms. Carroll

answered that they have seen it in a lot of other areas. She stated that when the data comes back it might show that the concentration is not significant. Mr. Smith asked how soon they would see the data. Ms. Carroll replied that it was up to the validators, sometimes they work quickly. She went on to say that this project was performed in two phases and they are now working on the second scoping which will generate additional data for validation and that might slow the process down. Mr. Patterson added that it might be months before Ms. Carroll receives the data because it was funded in two parts. Ms. Carroll closed.

3. Ravenna Army Ammunition Plant Public Web Site

Mr. Patterson announced that the arsenal finally has a public web site. This is the initial site; there are still a lot of documents that need to be added. He stated that within the next six months to a year that the public will see significant changes. He introduced Mr. Pat Ryan of SAIC to explain further. A RAB member interjected and stated that they were recently in the Newton Falls Library and noticed that they have a very nice display about the arsenal. He stated that they are displaying a book that tells all about the building of the arsenal. He wondered if there was one regarding the destruction of it. Mr. Patterson replied that there are many books, but none that one would probably want to sit and read in the evening. If an area has a report, that report will be made available. As part of the project, not only on the web site, but in the repositories as well, the Army has funded SAIC to digitize the old documents. Mr. Patterson stated that they want to try and preserve the documents, including historical ones. He said that the historical documents will probably all end up on the web site. He noted that Ms. JoAnn Watson has been very supportive of that.

Mr. Ryan greeted the board and stated that a web site was a very valuable tool in the preservation of information. Another advantage to a web site is that as more information is generated the site can be updated. This will make it easier to find information. He told the board that this was their web site and that they will be able to provide feedback, on what they like, dislike, what they want to see included, etc. He noted that all inputs will be responded to so that they can make sure that useful information is included in the site. He showed the RAB different pages of the actual site. The homepage has an overview of the site and what has been done at

RVAAP. On the side of the homepage are buttons that will take the user to specific informational pages. The first one talks about the mission of the arsenal. The current mission is a clean up program; it has links to the Installation Action Plan. All of the files are in PDF format for easy viewing. He noted that the software required to open the documents (Adobe Acrobat Reader) is be available for free download. He showed the RAB that at the bottom of each page were links that would lead them to the other pages. The next page is history, a one page summary of the particular topic with links to other sources of more detailed information. There is a photo album which gives a flavor of what the arsenal was like when it was operational. He told the board that if they knew of any photos that would be great here to let him know. The next page is the clean up program. It describes the EPA/CERCLA process. There are links to the EPA web sites as well. Also included are photos of the clean up in action. This gives you some idea of what goes on in the sampling process. There is a list of the AOCs along with their status, historical use, and the size of the area. He stated that you can click on a specific area which jumps you to the IAP which gives you a more detailed description of the site. He noted that although there are 51 AOCs not all of them are included in the Installation Restoration Program clean up. The next page shows areas of potential concern. A background map showing the area will be lightened and show the roads leading to it. Users will be able to click on the site on the map and will be taken to the IAP description. The next page is RVAAP documents. Only a few documents are loaded as of now, including the Community Action Plan. The list of documents will be sorted by AOC and chronologically. Documents for public review will also be posted to save you a trip to the public repositories. Repositories are also listed. The next page contains related links. These are links to web sites of organizations that have something to do with the clean up at RVAAP for example the Ohio EPA and USACHPPM. Mr. Ryan told the board to inform Mr. Patterson of any links that they feel should be added. The website will be updated monthly to keep it fresh and current. There is a public participation page that will include all of the newsletters (Community Access). Users will be able to put themselves on an email notification list to receive new copies as they become available. There will be a button so that users will be able to provide feedback in the form of an email. The next page will be the schedule of events. This page will includes times and dates

of RAB meetings, the location, tour dates, etc. Mr. Ryan stated that they intend to put a search capability on the home page so that you can easily search for certain subjects. A privacy statement is also included so that users will know that the site will not retain any personal information.

Mr. Ryan closed and asked for questions or suggestions. Ms. Marti Long expressed excitement and asked the web site address. Mr. Ryan stated that there is not a permanent address yet as they are trying to get the security plan approved. The site is temporary right now and they are not sure of how long it will take for them to get an official address (at least another month). He told the board that he could give them the temporary address if they like. Mr. Patterson stated that the information is so limited that he didn't see a problem with the members having the temporary address. Mr. Ryan was unable to locate the temporary address and stated that he would give it to Secretary Gilliam for the next meeting. Mr. Patterson stated that once the web page was up and running it would eliminate hard copies by utilizing the web site to deliver handouts, meeting minutes, and agendas.

4. Rosie the Riveter

Mr. Patterson informed the board that the National Park Service is establishing a Rosie the Riveter Tribute in California. They are looking for women from WWII to present and tell their stories. There were tens of thousands of women that worked at the ammunition plants across the county. He stated that some of the RAB and audience members might know some. They would like to know their stories. Mr. Patterson stated that he called the Park Service and told them about the arsenal and that they seemed very interested. He told the members and the audience that if they know someone to please let him know. Mr. J. J. Leet replied that his mother was a mail girl during that time and that she is now 79 years old. Mr. Patterson stated that he knows of the secretary to the original Commander's Representative, but that he thinks they are looking more for the ladies that worked on the actual production plant. An audience member suggested that the women at the arsenal did not actually work with the explosives; Secretary Gilliam replied that she has seen many photos of women actually loading the ammunition throughout the various Load Lines. A reference was made again to the display at the Newton Falls Library; Mr. Patterson replied that he had not seen it.

5. Guaranteed Fixed Price Remediation (GFPR) at Load Lines 1-4

Mr. Patterson passed out handouts relating to frequently asked questions regarding GFPR. He stated that his handouts come directly from the Army's environmental web site. He stated that Shaw Inc. spoke at the last meeting and talked about how they are going to get the work done at Load Lines 1, 2, 3, and 4 and coordinate it with the regulators. Mr. Patterson explained that Mr. Fitzgerald of Shaw told the RAB all of the steps that they would be going through. Mr. Patterson stated that the objective of having performance based contractors (PBCs) is that the Army will no longer have to give contractors a step-by-step approach to clean up endeavors. Instead they will just tell them the end result that they are expected to achieve and the contractor will be responsible for making it happen. Mr. Patterson stated that the Army has asked RVAAP along with many other ammunition plants to initiate more of these types of contracts. Mr. Patterson stated that the preliminary thought on this is that there was just not enough information on some of the sites to be able to utilize this option. More information is needed in order to determine if certain sites need to be cleaned up or not. Due to this the plant will not be utilizing this contracting mechanism this year. 12 AOCs will be done using one large contract, to determine the nature and extent of the contamination. This way there will be information on the projects so that contractors can submit very informed and competitive contracts for each of the clean-up projects. This is an attempt to try and reduce the risk, make the projects faster, and reduce a lot of the uncertainty of tracking the budget. Once the contractor has accepted the project they will then be responsible for the project completion lock, stock, and barrel. The Army will then have a much easier and concrete way of knowing what the clean up cost will be.

Ms. Eileen Mohr, Ohio EPA, reminded the RAB that over the holiday she sent out a letter with two attachments. She stated that at the last meeting the Mr. Fitzgerald from Shaw, Inc. looked at the GFPR for Load lines 1 through 4. There wasn't enough time to discuss all of the implications of his presentation and there were many questions asked after the meeting had ended. Additionally, this was the first time the Ohio EPA had heard the proposed clean-up plan. This is a new initiative championed by the Army. One of the things that we at RVAAP have always had is a team approach to the clean up of the installation. With regards to the GFPR there is a wide

range of thought about the process. Of two articles that were sent out to the RAB members; one was from the Aberdeen Proving Ground RAB. Their RAB members had a lot of issues with regard to the GFPR. The other article is from a resource management team and explains how the process got started. There is a large range of thoughts regarding the GFPR issue ranging from positive to negative, from it streamlining the process making it quicker, cheaper, faster, etc. to it being an ill-conceived notion, an untested initiative, to costing the tax payers more in the long run. Even amongst the RVAAP team there is a wide range of opinions, maybe not to the extremes represented in these articles, but it is still there. The goal of the Army is in 2008 to have about 70 percent of the installations under PBC or GFPR contracts. The Department of Energy (DOE) has used some of these initiatives and it didn't work out very well. While the Army feels some of these issues have been worked out, the bottom line is that this becoming a big issue nationwide. Congress has even addressed the issue. It was Ms. Mohr's intention, instead of the RAB being blindsided, to send out information from each side of the issue so that they would be more fully informed. We will be doing more of this and if you have any questions or concerns please let us (Ohio EPA) know. At this point Mr. Patterson asked Ms. Mohr if she would like to address resource issues. Ms. Mohr replied that resources were a big issue from the EPA's perspective. There are only two people assigned to RVAAP (Ms. Mohr and Mr. Todd Fisher) and there are other sites, like DOE, NIKE, and chemical weapon sites that require attention also. With the advent of the GFPR the Ohio EPA will be looking at a significant increase in work load, without having the personnel resources to accomplish all of these tasks in a timely fashion. Due to this lack in manning there is the potential for the process to be slowed or derailed, not any means by choice, but simply from lack of staffing. Mr. Patterson stated that if the RAB members would read through the handout he passed around, there are a lot of good questions and answers there that are objective. He explained that although the PBC process will not be used again this year, it will not eliminate public participation, regulatory participation, or the Army's control. The contracts can be more flexible in ways to streamline the process to get the projects to an end point. He stated that the situation at the Aberdeen Proving Ground (APG) is very different from the situation here at Ravenna. There are more complications there due to the fact that they have

chemical weapons, the installation is larger, and they have more problems. Ms. JoAnn Watson (Army) stated that she is stationed out of the APG on the southern half, which is listed on the National Priority Site. She stated that APG is one of the worst sites in the country. At the installation they conducted research and development for chemical weapons and actually perform open air testing there. The installation houses 5 percent of the nation's chemical stores. The north side of the installation is involved in the formation of new weaponry and five or ten times a day their main computers are attacked by hackers trying to obtain secrets. She stated that unlike RVAAP, the APG is an active installation with mission going on now. When the APG RAB heard about the GFPR they were alarmed and wanted to know what was going on. APG had gotten permission to evaluate PBCs at half of their sites. However, they don't have nature and extent delineated on their AOCs, so because of that, contractors can not go forward with bids and proposals. She stated that they are looking into seeing if this can happen for the installation in a year and half or so. She stated that the budget set for the entire clean up for RVAAP covers just one year at the APG. A tremendous amount of work has been done at RVAAP. The 12 sites that are being looked here are all considered low to medium sites that have not been characterized yet. She invited the RAB to refer to the handout and to feel free to plug into the AEC web site. She stated that there are all kinds of information out there on how the Army does business, more than enough to help the RAB get through this. She stated that this process will hopefully get rid of \$600 dollar toilet seats and hammers and contractors running over budget. She stated that hopefully more brain cells will be used on each project, seeing as there will be more people looking at potential solutions for the site due to the constraints. Mr. Patterson stated, again, that the 12 sites have not been characterized as of yet and that the Army has currently been given a schedule to have those sites on board by June. He stated that it will be same team that the RAB has seen before working on these sites. The execution will be contractors in the field, taking samples, and getting results. He said that some sites may end up being PBC and some won't. He asked if there were any questions. A member of the audience asked Ms. Mohr her opinion. She replied that she has mixed feelings on the subject. Some good things could come out of it. She stated that for the first go around with the new contracting process she would have preferred if

they had dealt with smaller AOCs instead of four major Load Lines, where the information that is available for is still in the beginning stages of understanding. Either that or Load Line 1 could have been done by itself because the RI data was significantly more complete. The one thing that RVAAP does have going for it, is that the environmental team is willing to sit down and discuss these issues. She stated that there have been some unpleasant and heated meetings over the PBC process, but everyone is willing to stay at the table to figure out what needs to be done. She gave a nod to Mr. Patterson, Ms. Watson, and the Corps with regard to their dealings with the 12 sites coming up, specifically, before they would go on PBC contract, that the Ohio EPA would have the necessary characterization data in place first. This approach was presented to the Ohio EPA and it made sense. Ms. Mohr stated that she wished this same sentiment had gone into the planning for the Load Lines. Mr. Smith asked Mr. Patterson what his input was. Mr. Patterson stated that his feelings regarding PBCs are that it is a good approach for certain types of processes. He stated that you have to have plenty of data up front and know the amounts and types of contamination that need to be dealt with. He stated that the more information that is known upfront the more you minimize the unknown element when the contractors come to the table. When all of that information is not readily available than the PBC approach is probably not the best one. Mr. Patterson stated that with regards to Load Lines 1 through 4, more time spent finding out all that information would probably have been better in the long run, however, there is a lot of data available and the PBC is in place. On the next 12 sites the information will be gathered and then a PBC put into place. Mr. Smith asked if the EPA has an input into which sites get PBC. Mr. Patterson answered that the Ohio EPA is invited to participate in the scoping of these projects. He stated that most guidance comes from the Army Environmental Center (AEC). He stated that a lot of sites do not end up even needing a clean up effort, but in those cases it is pretty well defined, so a PBC is not need there. He stated that the AEC has been pretty liberal in letting RVAAP have some input into which sites go PBC, but explained that the EPA is in the loop as well. Mr. Smith stated, "...so you work together agreeing to disagree." Ms. Mohr stated again that she would not have started with Load Lines 1, 2, 3, and 4 for the process, simply because the contractors didn't even have final RI data when they bid on the contract. Under the PBC, the concrete slabs at the

Load Lines will remain intact. Since there is not enough information available to say whether or not there is contamination under the slabs, there cannot be a final remedy for the National Guard to use the land for training missions. Additionally the issue of underground utilities is not addressed. Ms. Mohr stated that the approach for the next 12 sites is sound. There are, theoretically, no downsides to the approach because the information that is needed will be gathered before it goes out to the contractors for bids. The outcome of Load Lines 1,2,3, and 4 will be interesting to see. Mr. Patterson stated that the issue of concrete in the Load Lines is an outstanding issue. He said that each Load Line will be left with thousands and thousands of yards of poured concrete. There might be more contamination under them, but the Army doesn't have the funds needed to remove them so that tanks can be run across the area. So in these deficit years we will have to wait as it will take a couple of years to get funding to removing the concrete, and at the time there is no guarantee as to who the lead agency will be.

6. Scheduling of Next Meeting and General Notes

The next RAB meeting was scheduled for March 17, 2004 from 6-8 pm at the Windham Town Hall, Windham, Ohio. Ms. Long stated that after reviewing Mr. Ramier's application she just wanted to inform the board that she had worked with him in the past and that he was an excellent candidate for RAB membership. The vote will be next meeting. Mr. Patterson adjourned the meeting at 7:43 p.m.

Respectfully Submitted,

Denise L. Gilliam
RAB Secretary

DG/dg
Attach: 1