

**Ravenna Army Ammunition Plant  
Restoration Advisory Board (RAB)  
Meeting Minutes  
April 28, 2004**

**1. Call to Order and Reading of the Minutes**

The meeting was called to order by Lt. Col. Tom Tadsen at the Windham Town Hall, Windham, Ohio at 6:11 p.m. Secretary Denise Gilliam took attendance with 12 present, 2 excused and 8 absent (Dr. Barbara Andreas, Mr. Floyd Banks, Ms. Rebecca Carter, Mr. Kevin Cooper, Mr. Robert Daughtery, Ms. Sarah Lock, Mr. Mark Zigmont, and Mr. Milan Markov). Proposed changes to the minutes by Ms. JoAnn Watson were accepted and the minutes are so changed to reflect them (see below).

**2. Changes to the Minutes (January 21, 2004)**

Page 6, line 32 on: "...National Priority List. 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 performed open air testing there. The installation houses 5 percent of the nation's chemical weapons. The north side of the installation is involved in the formation of new weaponry. (Please delete end of sentence) She stated that unlike RVAAP, the APG is an active installation with an ongoing mission. When the APG RAB heard about the GFPR they were alarmed and wanted to know what was going on. [Please delete the next 3 sentences] 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 evaluated 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. [Please delete the end of this sentence] She stated that this process will hopefully get rid of \$600 toilet seats and hammers and contractors running over budget. She stated that more brain cells will be used on each project, seeing as there will be more people looking at potential solutions for the site. [Please delete the end of this sentence] Reword next sentence for clarification: Mr. Patterson stated, again, that the 12 sites have not been characterized as of yet and that the Army plan is to have those sites under contract by June.

**3. Characterization of 14 RVAAP Area of Concern (AOC), Mr. John Jent, US Army Corps of Engineers (USACE)**

Mr. Jent explained that out of the 14 sites, 12 had little or no work performed at them. Two of the other AOCs required significant groundwater studies. Out of the 14 AOCs, two are high relative risk, seven are medium, and five are low. He stated that if the present schedule is met the work will not be complete until 2014. The Army's goal is to clean up the remaining AOCs quicker and more efficiently than is currently being done. The Department of Defense's (DoD) program to accomplish this goal is Performance Based Contracting (PBC). PBCs are contracts in which the contractor gets paid only for the end results of the work, meaning when the site is closed that is when they receive payment. Once a PBC contract is awarded, the PBC contractor has great freedom to proceed through all the required CERCLA steps to get to closure. However, the contractor must comply with all CERCLA and state requirements, and must comply with all facility and Army requirements including coordination. At the Ravenna Army Ammunition Plant the work must satisfy the requirements of the Ohio EPA. PBCs are a new approach to doing DoD environmental work, although it has been widely used in the past for other

types of work. Mr. Jent told the board that in the early 1970s the Wolf Creek Dam, which was constructed over limestone, developed sink holes. The USACE didn't know how to fix it, so they gathered all of the historic information, all borings, and put in a request for a proposal out to the world. Only one company, out of Italy, bid on the project. They drilled a series of vertical holes along the dam centerline and filled them with concrete. This is an example where historical data is given and a PBC was utilized. Mr. Jent provided the RAB members with another example of how a PBC was utilized and was successful. He summed it up by saying that the contracting mechanism basically works because the information is gathered and placed for bid. Here is the problem, here is the information, come and fix it. Mr. Jent reiterated that PBCs were not new to the DoD, but they were new to the DoD environmental world. Because PBC attempts to accelerate the program, it is inherently fast paced and can cause stress. However, by the RVAAP utilizing this mechanism the area should be able to be turned over to the OHANG sooner. He stated that at RVAAP a fixed price remediation with insurance was awarded for Load Lines 1, 2, 3, and 4. This was done very quickly and was very stressful, and many felt that they had no say so in the matter. He stated that the biggest problem was that the Army and the National Guard Bureau had not agreed upon the future land use. By setting it as a PBC the DoD basically forced the Army and the National Guard Bureau to set the land use. Mr. Jent stated that how to get to the end or closure of the sites is still being worked out, but at least the end point is known. Mr. Jent explained that in order to expedite the remediation of RVAAP the current plan is to award another PBC contract in FY 2006. In order for this to happen there must be a sufficient characterization of the 14 AOCs so that the contractors that bid on the project can be efficient and cost effective. This knowledge will enable them to minimize insurance costs and in the end minimize taxpayer costs. He stated that the better the characterization the less the uncertainty. Because there is so little know about the remaining 14 AOCs it is imperative that as much information as possible is collected. The 14 sites are: Load Line 12 and Buildings F-15 and F-16 (both are high relative risk), Load Lines 5, 8, 10, the Anchor Test area, the Atlas Scrap Yard, the Pistol Range, the NACA Test Area (all of which are medium relative risk), Building 1200, the landfill north of the Winklepeck Burning Grounds, Load Line 7, Wet Storage Area, and the C-Block Quarry (all of which are low relative risk). Mr. Jent showed the board members a map of the installation that depicted the locations of the sites. He passed around a handout that showed the summary of the fieldwork to be conducted. There will be 153 MI surface soil samples, 7 MI floor sweep samples, 79 MI dry ditch samples, 17 sump samples, 57 sanitary sewer samples, 19 wet ditch samples, 52 trenches for geology, and 62 groundwater monitoring wells. Mr. Jent asked if there were any questions. Ms. Eileen Mohr asked what MI stands for on the sampling sheet. Mr. Jent replied that they will be using multi incremental (MI) sampling instead of the normal discrete sampling. Mr. Jent explained that in multi incremental sampling, small samples are taken across an entire area so that you get a better picture of what is truly happening within the area. He added that while there will still be a few discrete samples taken, the MI will provide them with more legally valid results. Ms. Mohr added that they (the Ohio EPA) had taken a course on MI sampling. She stated that everyone used discrete sampling techniques until they went into this course. She stated that the MI sampling technique just makes more sense, because it provides a better picture of an area. She stated that the Ohio EPA has looked hard at this method and found that there is both state and federal precedence to use this method. Mr. Jent added that they will be coordinating closely with the Ohio EPA. Lt. Col. Tadsen stated that there has been a disconnect between the Army and the National Guard Bureau regarding the land use aspect of the project. He stated that he had attempted to get his bosses to firm up the land use issue for three years. He stated that only recently (in March) were they all able to sit down in Washington with BRAC to get a final end state for Load Lines 1, 2, 3, and 4. He stated that everybody was talking together for the first time.

He stated that there is still a big disconnect in so far as who will take up the concrete slabs and which organization will pay for it. The concrete slabs must be removed so that OHARNG tank training can utilize the entire LL 1, 2, 3, 4 areas. BRAC and the National Guard Bureau are trying to get Army funding for the project, but it is directed by the National Guard Bureau. The OHARNG will not sign for the property until that work is done. He added that they were on the right track. At 6:35 Mr. Jent closed his presentation.

**4. Project to Clear Unexploded Ordinance at Winklepeck Burning Grounds (WBG), Mr. Richard Callahan, MKM Engineers, Inc.**

Lt. Col. Tadsen introduced Mr. Callahan to the board. He stated that the WBG is critical to the OHANG. He stated that an Ohio congressman came up with \$1.4 million dollars to use for the Mark 19 range. He stated that the OHARNG are currently working outside of the contaminated area, taking down trees clearing brush, and trying to get the range operational. He stated that there are 312 soldiers that need to train at this range once it is operational. These soldiers are getting ready to deploy to Iraq or Afghanistan. He stated that they need to be able to practice firing those weapons before they are shipped out. He stated that this range is desperately needed in order to support the war in Iraq. He stated that Ms. Watson and Mr. Patterson are working diligently to find ways to transfer the property to the OHANG early. He stated that the pistol range already exists, but that there is a need for the Mark 19 range. He stated that the Mark 19 Range was not in the initial plan for the arsenal; but that the Army had since given the weapon to these 312 soldiers and they were told to use it. He stated that this range is of high priority. Mr. Joe Buetler asked Lt. Col. Tadsen why that particular area was chosen for the Mark 19 Range, he replied, that it is centrally located and is predominately flat. He stated that a range designer came in and said that the area was the best for a range of this sort. At this point he turned the presentation over to Mr. Callahan.

Mr. Callahan thanked the board for allowing MKM to present to them again. He stated Scopes of Work and proposals are being prepared to get the Mark 19 Range up and running. Mr. Callahan informed the board that Remedial Investigations and Risk Assessments were completed on the area in April 2001. He said the property is on a fast track. He gave the board some background information about the proposed site. He told them that the Remedial Investigation and Risk Assessment of the WBG were completed in April 2001 under the OHARNG trainee reuse scenario. In January 2003 the OHARNG revised WBG land reuse to include the construction of a Mark 19, 40 mm range training facility. The WBG Risk Assessment is currently being revised by USACE to reflect the Mark 19 Range reuse. The anticipated completion of that is April or May 2004. After the UXO clearance in 2004 the range will be constructed. Mr. Callahan explained that the proposed range will have four firing points. He stated that there are technical manuals about how this is to be performed. He stated that a 30 foot wide access road will be constructed. He noted that the rounds fired at the range will be training rounds versus high explosive rounds. He told the board that there will be a buffer around the range itself. He showed them a map of the range, in which you could see the locations of the burn pads in relation to the boundaries of the range itself. He showed the RAB where the buffers would be located and noted again that technical manuals will guide the construction of the range. Mr. Callahan explained that the UXO clearance will be conducted prior to the construction of the range. Approximately 15 acres will be surveyed for UXO anomaly density. He stated that eight pads that exhibit elevated environmental risk will be cleared to a depth of one foot. These pads are: 37, 28, 45, 58, 60, 61, 66, and 67. He stated that where the target array physically crosses pad they will clear to 4 feet. There will be a surface clearance of the firing points to 1 foot and a surface clearance of the target arrays (400, 600, 800, 1000, and 1500 meters). He showed the RAB members a schedule of the

work to be performed. The schedule consists of two phases, the survey and the actual clearance. The schedule shows that the UXO clearance should be complete in approximately December of 2004. Lt. Col. Tadsen added again that the range was really needed. He stated that Private Jessica Lynch is an example as to why, she was poorly trained on how to react in combat and was unable to fire her weapon. He noted that the bottom of the range is a ricochet area. He stated when the Mark 19 range is in use the pistol range will not be in use. He stated that short suspense dates and coordination on everyone parts will be need to get the range up and running. Mr. Callahan added that heavy effort should go into surveying and clearing the pad itself. He stated that in the past items have been found there that were not anticipated. He stated that they have a lesson learned aspects that can be used when they go into that area, the area will be sifted in the Phase II portion. It will be excavated and sifted to a depth of 1 foot up to four feet. He stated that the schedule was approximate at best and if they were able to speed it up they would. He stated that a work plan as well as an ESS will be prepared. He stated that that would be a three month process, but that it will be started very soon. He told the RAB members that all of Phase 1 can be folded into the ESS, and that the phase II is the actual physical clearance of the range. Mr. Callahan stated that he hopes to get it all done this year.

Mr. Callahan opened the floor for questions. Mr. Earl Miller asked how an individual becomes an M-19 Gunner if they have never shot one. Lt. Col. Tadsen replied that they can do all of the training before they come to fire one. He also added that they are trying to ensure that the range does not come into contact with the waterways on the arsenal. He stated that that had been a problem before and that RVAAP shut down for three years. Ms. Irene Glavies-Lutz asked, what was the name of the creek depicted north on the map. Lt. Col. Tadsen responded that it was an unnamed tributary and intermittent stream in the wetland area. He stated that it shouldn't be too difficult to work around. He stated that Sand Creek would be a problem area and that they are trying to keep the target away from it. He stated that he couldn't guarantee that it wouldn't happen but that they are taking precautions. Lt. Col. Tadsen stated that the most significant change would be that there would be more nighttime operations than before. He stated that because the war in Iraq is happening predominately at night the troops must be trained for that. He noted that up until two years ago one of the biggest sector of personnel training at RVAAP was Special Ops who conducted most of their training at night. He stated that everyone will have to get used to and adapt to a 24 hour training schedule. Dr. Abercrombie asked if the OHARNG were responsible for training their own troops or does the Army itself train them for specialized weapons. Lt. Col. Tadsen replied that the regulations state what training is required for each job. He stated that the regulations state how many times that a person must fire a weapon in order to be qualified, what type of ammunition they have to use and in what time frame is required. He stated that mobilization stations provides them further training before they are sent to Iraq and Afghanistan. RVAAP used to be a mobilization station for the Army, but they lost their mission in 1992. The Army was cut due to the end of the cold war. Mobilization stations were closed all over the US, and now that the war in Iraq is underway many guard units have been turned into mobilization stations. Dr. Jay Abercrombie stated that the range then is to prevent a bottleneck so that soldiers can receive more training here before they go to the war. Lt. Col. Tadsen replied that they need to be ready to go to war when they reach the mobilization station. He stated that the stations are where the soldiers finalize their wills, etc before they leave. He went on to explain that other weapons could also utilize the range and explained the maximum ranges. He stated that there are only three people in the United States who are qualified to design ranges and that one of them came to RVAAP to look at how to set up a range for a variety of weapons safely. All of the ranges will be in the center of the plant as this minimizes noise and because it is away from the perimeter a fence can be placed around it to avoid injuries. Dr. Abercrombie asked if the Indiana

Bats are an issue. Lt. Col. Tadsen responded by saying that the Indiana Bat survey is in. He noted that the building of the range does not remove any legal responsibility that the Army or the OHARNG has. He stated that the issue of rattlesnakes is also being looked at. In order to be able to use the property the OHARNG has to prove that either they are not there or are not in danger of being hurt. He stated that there is a possibility that the Henslow Sparrow will move into the area as the brush will be cleared and they don't like brush. Buns of the area will be conducted to minimize the risk. Ms. Kerry MacComber asked when they are talking about site studies what are the latest aerial photos being utilized. Mr. Callahan replied that the MKM took aerial infrared photos in 2000. Mr. Callahan closed this portion of his presentation and proceeded to give the board a project status report that went as follows:

#### **Load Line 6**

##### **24 Buildings**

- Brush hogging (approx. 42 acres) began in September 2002. Completed early October 2002.
- Floor Sweeping (81,143 sq. feet) began early October 2002. Completed end of November 2002. Disposed of 3 cubic yards of hazardous (lead and cadmium) solid waste.
- Asbestos transite removal began October 2002 and completed December 2002. 131,774 sq. feet of transite removed and disposed of as special waste.
- Removal of lights, ballasts and asbestos gaskets began October 2002. Completed on November 2002. 2116 fluorescent light bulbs and 723 ballasts (12 drums) removed for recycling.
- Loading dunnage (clean pallets and bulk wood) into buildings began November 2002 and completed January 2003. – Approx. 25,000 pallets required for Thermal Decomposition of Load Line 6.
- Thermal Decomposition performed May 5, 2003.
- Demolition operations began July 2003 and completed September 2003. - 1.4 million pounds of steel removed for recycling. Approximately 600 tons of concrete and 300 tons of brick crushed and staged on site for reuse.

#### **Load Line 9**

##### **34 Buildings**

- Brush hogging (approx. 45 acres) began in October 2002. Completed end of November 2002.
- Floor Sweeping (54,737 sq. feet) began mid November 2002. Completed mid December 2002. Disposed of 3 cubic yards of non-hazardous solid waste.
- Asbestos removal began November 2002 and completed March 2003. A total of 127,119 sq feet of transite removed from the Load Line.

- Removal of lights, ballasts and asbestos gaskets began November 2002. Completed January 2003. 1249 fluorescent light bulbs and 465 ballasts (8 drums) removed for recycling.
- Loading dunnage (clean pallets and bulk wood) into buildings began November 2002 and completed March 2003. Approximately 20,000 pallets required for Thermal Decomposition of Load Line 9.
- Thermal Decomposition operations performed May 8, 2003.
- Demolition operations began September 2003 and completed November 2003. - 1.07 million pounds of steel removed for recycling. Approximately 800 tons of concrete and 200 tons of brick crushed and staged on site for reuse.

### **Wet Storage Igloos 1, 1A, 2, 2A**

- Site clearing operations completed January 2003. Vegetation and soil cover removed from top and sides of igloos.
- Igloos desensitized inside prior to loading dunnage and conducting TD operations to ensure the safety of onsite personnel.
- Dunnage loaded into the interior and a vent hole opened in the roof of each igloo.
- Thermal Decomposition (TD) operations performed February 10, 2003.
- Demolition activities to be performed in conjunction with 4 remaining buildings at LL6.

### **Paris Windham Road Dump RD/RA**

- Removed a total of 300 tons of surface and subsurface debris (asbestos containing material) from April 15, 2003 to April 23, 2003.
- Completed a total of 10 test pits to verify complete debris removal.
- On April 28 & 29, 2003, laid out 10 sample grids over dump area and collected confirmatory soil samples and collected 6 surface water and 6 sediment samples from adjacent flood plain. All samples were analyzed for asbestos, TAL Metals and explosives with 10% sampled for RVAAP full suite.
- Surveyed all sample locations May 15, 2003.
- All sample data validated by a third party validator.
- Site restored to grade October 10 through October 11, 2003 until data can be further evaluated and a determination is made if any further action items are required for the site.
- Site restored using a combination of "clean hard fill" and approved off site soils

- Final Report submitted to OEPA April 5, 2004.

### **Sand Creek Dump RD/RA**

- Removed a total of 1,118 tons of surface and subsurface debris (asbestos containing material) from August 11, 2003 to September 9, 2004.
- From September 9, 2004 through September 22, 2004, laid out 30 sample grids over dump area and collected confirmatory soil samples.
- 3 surface water and 12 sediment samples were also collected from adjacent flood plain.
- All samples were analyzed for asbestos, TAL Metals and explosives with 10% sampled for RVAAP full suite.
- Surveyed all sample locations October 8 & 9, 2004.
- All sample data validated by a third party validator.
- Site restored October 1 through October 10, 2003 until data can be further evaluated and a determination is made if any further action items are required for the site.
- Final Report submitted to OEPA April 5, 2004.

### **Load Line 2**

#### **39 Buildings**

- Floor Sweeping (89,930 sq. feet) began early April 2003. Completed end of April 2003. Disposed of 2 cubic yards of hazardous (lead) solid waste.
- Asbestos removal began early April 2003 and completed end of April 2003. A total of 70,779 sq feet of transite and rolled roofing material removed from buildings not included in first asbestos removal operation at the Load Line.
- Removal of lights, ballasts and asbestos gaskets began early April 2003. Completed end of April 2003. 1,800 fluorescent light bulbs and 690 ballasts (5 drums) removed for recycling.
- Loading dunnage (clean pallets and bulk wood) into buildings began March 2003 and completed July 2003. Approximately 45,000 pallets required for Thermal Decomposition of Load Line 2.
- Thermal Decomposition contingent upon USEPA ruling -with demo to follow

**Load Line 3**  
**37 Buildings**

- Floor Sweeping (170,508 sq. feet) began March 2003. Completed April 2003. Disposed of 5 cubic yards of hazardous (lead) solid waste.
- Asbestos removal began early mid April 2003 and completed mid August 2003. A total of 369,818 sq feet of transite and rolled roofing material removed from the Load Line.
- Removal of lights, ballasts and asbestos gaskets began May 2003. Completed end of June 2003. 1,608 fluorescent light bulbs and 600 ballasts (4 drums) removed for recycling.
- Loading dunnage (clean pallets and bulk wood) into buildings began March 2003 and completed July 2003. Approximately 44,000 pallets required for Thermal Decomposition of Load Line 2.
- Thermal Decomposition contingent upon USEPA ruling -with demo to follow.

**Load Line 4**  
**23 Buildings**

- Floor Sweeping (108,800 sq. feet) began March 2003. Completed April 2003. Disposed of 4 cubic yards of hazardous (lead) solid waste.
- Asbestos removal began early end of July 2003 and completed end of September 2003. A total of 342,672 sq feet of transite and rolled roofing material removed from the Load Line.
- Removal of lights, ballasts and asbestos gaskets began May 2003. Completed end of June 2003. 1,608 fluorescent light bulbs and 600 ballasts (4 drums) removed for recycling.
- Loading dunnage (clean pallets and bulk wood) into buildings began October 2003 and completed November 2003. Wooden buildings at the load line collapsed for burning and approximately 10,000 pallets required for remaining brick/block.
- Thermal Decomposition contingent upon USEPA ruling -with demo to follow.

Mr. Callahan asked the board and the audience if there were any questions. Lt. Col. Tadsen asked if the problems that surrounded Load Line 6 and Badger Army Ammunition Plant (BAAP) were national. Mr. Callahan replied in the affirmative. He stated that MKM Engineers has been up front and involved in the issues related to burning that BAAP was in the process of addressing. He stated that BAAP conducted their own risk assessment and that the EPA there has been very supportive. An audience member asked how many buildings contained PCB paint. Mr. Callahan replied that approximately 20 did. The audience member asked if it was in the wall paint and Mr. Callahan replied in the affirmative. He stated that Load Lines 2, 3, and 4 would not be burned until the US EPA renders their decision. He stated however, that burning was still the most effective treatment for the demolition and decontamination of Load Lines. Mr. Mike Sever asked what the other methods of disposal were. Mr. Callahan replied that the next best way is to



knock the buildings down and transport the material to a landfill, but this method has obvious safety concerns. Mr. Sever asked if it was true that wooden buildings have higher levels of PCBs. Mr. Callahan answered that that was interesting seeing as the burns that have been conducted have shown no emissions. Mr. Sever asked what happens when PCBs are burned. Mr. Callahan replied that he was unsure of what exactly happens as most of the paint remains intact, but is confident that the EPA will find that emissions of PCBs are very little. He deferred to the Risk Assessment taken at BAAP. Mr. Callahan closed his presentation.

**5. General Business**

Having reached the desired number of members for a quorum (one over with 12) the board decided to vote on the applications for membership submitted by Mr. Charles Ramier and Mr. Walter Landor. Nina Miller led the discussion. A motion was made to vote on the induction of Mr. Landor by Mr. J.J. Leet, was seconded by Ms. Miller and carried with a unanimous vote of aye. A motion was made to vote on the induction of Mr. Ramier by Mr. Leet, seconded by Ms. Glavies-Lutz and carried with a unanimous vote of aye. The RVAAP Restoration Advisory Board proudly welcomes both Mr. Landor and Mr. Ramier as acting members.

Ms. Mohr brought up a new order of business. She stated that recently she sent a point of contention to the homes of all of the RAB members. She noted that the item that she wanted the RAB to note was on page 15; it deals with the adjournment of restoration advisory boards when the installation has GFPR methods in place. Ms. Mohr stated that the rule states that the installation should consult with the RAB about adjournment issues. She stated that the words should and shall are utilized here. She stated that the RAB might want to consider drafting a letter to the Army if they are against this rule. Several RAB members questioned who would have the say so in this, would it be the installation Commander's Representative (Mr. Mark Patterson) or would it be someone in the Army. There was a certain degree of confusion about that and a clear answer was not provided. The RAB members decided that to be on the safe side a letter should be drafted contesting the rule and reviewed by them.

**6. Scheduling of Next Meeting and General Notes**

The next RAB meeting was scheduled for June 16, 2004 from 6-8 pm at the Freedom Town Hall, Freedom, Ohio. Ms. Nina Miller moved for the meeting to be adjourned, seconded by Ms. MacComber, Lt. Col. Tadsen adjourned the meeting at 8:09 pm.

Respectfully Submitted,



Denise L. Gilliam  
RAB Secretary

DG/dg  
Attach: 1