Ravenna Army Ammunition Plant
Restoration Advisory Board (RAB)
Meeting Minutes
March 15, 2006

1. Call to Order & Reading of Minutes

The meeting was called to order by Community Co-Chair LTC Tom Tadsen at 6:05 p.m. at the Shearer Community Center, Paris Township, Ohio.

LTC Tadsen introduced Glen Beckham as the U.S. Army Co-chairman for the Restoration Advisory Board.

LTC Tadsen asked the board members if they had any additions or corrections to the minutes. No comment from the RAB members present. Mr. Tom Smith made a motion to suspend with the reading of the minutes of the previous meeting. The motion was seconded by Mr. Walter Landor. LTC Tadsen called the motion to question…."All those in favor please say 'Aye.' All those opposed?" The motion carried, and LTC Tadsen announced the minutes were approved as printed. LTC Tadsen announced that copies of the January 25, 2006 minutes are on the back table along with tonight's presentation handouts.

LTC Tadsen took a minute to introduce the newly appointed RAB members that were not present at the January meeting. Mr. Stan Levenger was introduced and spoke a few minutes about his interest in the RAB.

Secretary Christy Esler took a visual attendance with 16 members present, 4 excused and 5 absent (Dr. Jay Abercrombie, Mr. Christopher Smeiles / Ms. Kerry Macomber, Mr. Howard Furl, Sara Lock, Ms. Trish Nuskievicz).

2. General Business

LTC Tadsen informed the audience that a couple of questions were unanswered during the January 25, 2006 RAB Meeting. LTC Tadsen read the first question proposed by Mr. Paul Dankovich; where was the sludge disposed of on site?

Mr. Paul Dankovich was not present at this meeting and LTC Tadsen asked that we send him a response by mail. LTC Tadsen reported that the sludge was disposed of at a number of sewage treatment plants at RVAAP. All sewage treatment plants were regulated in accordance with Federal and State Regulations. Sewage from Load Lines 1, 2, 3, and 4 went to the Sand Creek sewage treatment plant; sewage from Fuze & Booster, Administrative Area (former laundry area) Bldg. 1037 went to the George Rd sewage treatment plant; and the sewage from the Depot area went to the Depot sewage treatment plant. George Rd. was the main sewage treatment plant and operated from 1988 to 1992. The sludge was diluted and disposed of on site on agricultural fields located West of Slagle Rd. and West of Wilcox-Wayland Rd. Testing was conducted on sludge for explosives a ½ mile north of the Southern perimeter of the installation for metals, explosives and pH. Low levels of explosives were

found from the laundering of coveralls used by personnel coming off of the load lines. This information was provided to Tom Chanda who worked at the arsenal then. In 1990 tests were conducted with no trace of explosives detected. Additional parameters were tested and showed low levels for metals, pH, total solids, phosphorus, ammonium, total kildall and nitrogen.

In 1990 seventy four tons of sludge was applied to the two agricultural areas mentioned. Eight additional tons of lime was applied to the Slagle Rd. agricultural field to lower the pH levels. Beyond 1992 the entire installation uses portable laboratories except for the headquarters bldg. 1037 and a couple of other buildings right in that area that used a mounted septic tank system.

LTC Tadsen turned the audience's attention to Glen Beckham to address the remaining unanswered questions from the January RAB meeting.

Glen Beckham addressed the comment card requesting burn hut pictures and video. Glen announced that pictures of the burn hut are on a storyboard near the handout table and are in tonight's presentation packet. We are trying to obtain a video to present at the next scheduled RAB meeting.

Glen read the comment card from Mr. Bill Krimmer regarding the potential that many people were unaware of the public comment period concerning the Winklepeck Burning Grounds. Better advertising and longer lead time were recommended by Mr. Krimmer.

Glen Beckham asked Christy Esler to please review the notification process that is in place. Press releases are sent to seven local newspapers, three radio stations and eight television stations. RAB members, elected officials (including Federal officials, state, county officials and city) receive the notification by mail. The public mailing list also receives the notification by mail which includes approximately 150 members. The rvaap.org web site also posts an announcement.

Glen Beckham added that during this public comment period they also decided to place a newspaper ad in the local newspapers in addition to a press release to insure the papers announced the comment periods.

Julie Smeiles (The Villager) asked the EPA process time requirement? From the time the study is finished to the advertisement what is the end of the comment period?
Nancy Taylor- Does the clock start when it is published in the Federal register?
Eileen Mohr- These sites fall under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) Federal process, however there is no announcement in the Federal Register.

LTC Tadsen- What publication starts the clock ticking?
Eileen Mohr- The written comments must be post marked within the public comment period timeline of 30 days.

Glen Beckham- There is not a requirement on when to schedule the meeting. Usually we schedule the meeting 2 weeks into the public comment period to allow the public to review the document.

The next question was asked at the January RAB meeting.

The presence of lead flooring during thermal decontamination during the 2003 time frame was this true? During the January meeting we did recall lead lined sumps at load line 6 & 9. Yes a number did have lead linings on the floor which provided a static free environment; it was a safety hazard to remove the floors because of the possibility of an explosion. MKM Engineers prepared detailed packages and submitted then to Akron Air (Mr. Lynn Malcom). Bench scale tests were conducted by MKM Engineers to determine the maximum release of lead. At 600 °F lead melts, at 3200 °F is when lead reaches a boiling point and will release vapors in the air. MKM Engineers used thermo couples on the walls that showed the burn reached a temperature of 2200 °F. Therefore the burn did not reach the temperatures where lead was released into the atmosphere. Prevailing wind conditions were calculated by a climatologist, emissions would go straight up. Maps were used to show the nearest residents with wind calculations to show air moving away. Based on that information Akron Air issued a permit.

Julies Smeiles (The Villager) - Inquired about the infamous dip stick test using a stainless steel cup with a probe that Rick Callahan performed.
Glen Beckham answered by saying that the key determining factor to him is the 3200 °F boiling point v/s 2200 °F the burn reached.

Julie Smeiles (The Villager) – MKM performed similar tests at the Indiana Army Ammunition Plant and the Indiana EPA did monitor the lead and found a release.
Glen Beckham- said that due to the temperatures expected during the burn, Akron Air did not require air monitoring.

Julie Smeiles (The Villager) - at the Indiana Army Ammunition Plant (INAAP) they used a portable unit that detected elevated levels of lead. But at RVAAP no air monitoring was completed.

Glen Beckham – Akron Air issued a permit to MKM Engineers with the requirements. Akron Air did not require air monitoring.

Julie Smeiles (The Villager) - During the INAAP burns they did not expect a release, could this same issue happen with the burns at the Ravenna arsenal.

Glen Beckham answered that he is not familiar with the INAAP burns but would check into the project and answer this at the next meeting. Glen asked the audience to keep in mind that Army Ammunition Plants are different and can not be compared.

LTC Tadsen introduced the presenters for the evening.

3. Presentation on the Phase I Laboratory Study of the Behavior of Polychlorinated Biphenyl (PCB) Compounds in Paint at Elevated Temperatures.
Mr. Joe Carvitti & Mr. Darrell Joseph, Battelle Memorial Institute.

After completion of the formal presentation, the RAB Members proceeded with questions directed to Joe Carvitti & Darrell Joseph.

Stan Levenger- inquired about the Thermocouple data test design summary, it looks to be ultra conservative. Your presentation is showing 10 minutes at 2100 °F and 20 minutes at 1600 °F temperature duration.
Joe Carvitti- ultra conservative, estimating the maximum release of PCBs from the paint. One thing we do not want to do is over estimate so that we make sure we take enough blocks to North Carolina.

Stan Levenger- 2100 °F duration for 10 minutes you are running an hour. An hour for each temperature range (low variability).
Joe Carvitti- Thanked Stan for the valued comments and they will reconsider the duration. We may look at 1600 °F (at or above) for approximately 30 minutes and get higher release rate, but this might also be an over estimate.

Stan Levenger- Do you have additional temperature curves?
Joe Carvitti- Yes, the objective is to have enough material for Phase II.

Dan Spicer- asked isn't it better to over estimate than under estimate?
Joe Carvitti- we do not want to under estimate the amount of PCB released. We will be collecting blocks to take with us for the testing in Phase II.

JJ Leet- The samples contain other metals, will the tests also reveal that?
Joe Carvitti- Yes, any metals released from the paint will be captured and analyzed.

No other questions were fielded from RAB members for the Battelle Memorial Institute presentation. LTC Tadsen opened the floor to public attendees for questions.

Julie Smeiles (The Villager) - Indirect heat source chosen to carry out the testing, why not an open flame?
Joe Carvitti- No research has been completed on the PCBs being released from paint. This is a new area of research. Phase I is a simple yet effective test. We want to introduce as few variables as possible. Open flame introduces chemistry; it is hard enough to define simple parameters. For Phase II to be successful we need the basic understanding we will obtain in Phase I.

Bob McDonough (Windham Resident) - 80% PCB concentrations is 9000 ppm or less?
Joe Carvitti- 80% of the samples collected showed 9,000 ppm or less. USEPA doesn't want us to test higher than 10,000 ppm. We are finding in the material at RVAAP mostly 9,000 ppm or less, some samples are higher. We are expecting uniformity of PCB concentration in a wall paint sample. If 80% of the paint is at 9,000 ppm or less, then we can find enough material.

Bob McDonough (Windham Resident) - Why would the USEPA not want you to test over 10,000 ppm?
Joe Carvitti- I am unable to answer that question for the USEPA.

Maril Novak (Windham Resident) - What are you testing for?
Joe Carvitti- We are burning paint. The question we are trying to answer is PCBs released from dry paint when burnt? This question has never been answered. PCB in paint in the 40's and 50's was a common practice. Measurements of PCBs are not new but Darryl agreed there is not any literature describing results and its behavior when heated or burned in dried applied paint.

Maril Novak (Windham Resident) - Testing for what is unique at RVAAP?
Joe Carvitti- This is not just unique at Ravenna. Many Army installations have been painted with PCB contaminated paints. The Army needs to deactivate the explosives. What happens to paint when it is subjected to fire, how do the PCBs behave? USEPA does have a site specific risk assessment procedure; they are still in need of actual data.

Bill Krimmer (Paris Township Resident) - Test design of furnace is a 7ft tube to contain heat like a ceramic boat in a glass tube. The paint is a powdered substance. We are not burning paint here?
Joe Carvitti- Joe used an example of a heat gun directly pointed at the source it would turn into a plastic mass with smoke. In the tube the paint will become the plastic mass then we will analyze the mass.

Bill Krimmer- Analogy you are using measuring just heat application to the compound.
Joe Carvitti- We are doing this by adding air in the tube. Temperature will break bonds, oxygen in the glass tube and boat.

Bill Krimmer- Inquired about the Load Line 11 samples to be used?
Glen Beckham- No, collected samples as of yet.

Joe Carvitti- When we go to North Carolina we will be using blocks collected from RVAAP and then assemble a wall from those blocks. We may build as many as 12 wall sections.

Glen Beckham- Pointed out when mini walls are built we will then be using the pallets from RVAAP also. The collective goal is to make it a miniature replica of RVAAP.

Julie Smeiles- during Phase I will any public or media be invited to watch this test and will we have the opportunity to view the plans?
Joe Carvitti- Yes, there will be an opportunity for a few public and media to attend. We are still researching the extent of how up close and personal attendees will be permitted to observe. Yes the draft plans will be available.

LTC Tadsen suggested the idea of looking into the possibility of a video link that the invitees can watch from another room.
Joe Carvitti- thanked LTC Tadsen for the idea and said he would look into that also.

Julie Smeiles (The Villager) - Asked Joe if bricks and blocks will be in one area or separate?
Joe Carvitti- Answered that Phase II has not be designed yet. We may begin some disassembly and save blocks. It is Irv Venger's (RVAAP Acting Facility Manager) intention to segregate brick during demolition then rebuild in North Carolina.

Joe Carvitti- As for concentrations, we will follow the sampling protocols during formal design of Phase II to include measuring all gases that are released.

Julie Smeiles (The Villager) - At this point you have 1 wall at 4,000 ppm and 1 wall at 8,000 ppm.
Joe Carvitti- We want to control the variability we are not going to mix. Our intention is to see how 4,000 ppm behaves compared to 8,000 ppm.

Glen Beckham- General correlations of the colors, yellow v/s greens with respect to PCB concentrations.

Joe Carvitti- Asked the audience to please keep in mind that Phase II is in the idea phase.

Bill Krimmer (Paris Township Resident) - During the testing phase on page 4 & 5 of your presentation. There is a value of subjecting new paint samples at each level. Temperatures are low and ramp up then cool down quickly.
Joe Carvitti- We will be subjecting new paint samples at each level. During the gas sampling, PCBs could be released at this temperature within 10 minutes. But a 10 minute sample time is not enough.

Bill Krimmer asked if it would be valuable to complete additional tests.
Glen Beckham- Phase I does not pertain to what you are describing. Phase II would address this issue and as Joe has mentioned earlier that is still in the idea phase. This would be a more appropriate question for the Phase II presentation.

Joe Carvitti- explained that understanding this is not easy and they are trying to come up with the best scientific approach to take us to the next step. In order for us to design Phase II we need to go through Phase I.

LTC Tadsen- Mr. Krimmer asked if additional tests would be valuable, could this possibly become a Phase I (a).

Joe Carvitti- The ramp up and cool down of temperature needs to be observed and then considered.

Maril Novak (Windham Resident) - Referred back to the question of RAB Member, Stan Levenger. We are not looking at total duration of the burn. Total number of many kinds of PCBs released.
Joe Carvitti- Darrell has been studying the literature on volatizing PCBs. We are unsure, but we believe no PCBs will remain in the paint. We will begin the test matrix with the highest PCB first, expecting to observe the highest concentration and mass release.

LTC Tadsen asked Joe to refer back to the slide that shows LL6 and LL9. LTC Tadsen pointed out the difference of the two. He inquired about the sporadic spikes in LL6 compared to the LL9 slide. Joe explained by saying that the spikes were a result of using walkie-talkie for communication during the creation of the profile. Once they discovered that there was an interference they refrained from using the two way radios. Joe also said that LL6 ramped up slower than LL9. MKM Engineers prepared for the burn a day in advance instead of the morning of LL9 and there was a heavy rain after preparing LL6. The LL9 slide is more typical and a better approach.

JJ Leet- The higher concentrations in PCBs does not only pertain to Ravenna. Isn't it true that a number of ships have higher concentrations of PCB also?
Joe Carvitti said that yes and on the James River there are as many as 1,000 vessels that contain PCB contaminated paint.

The next scheduled RAB meeting will be at the Paris Township Hall on May 17th, 2006.

Since there was no further business, the meeting was adjourned at 8:10 p.m.

Respectfully submitted,

Christy Esler
RAB Administrator