

**Ravenna Army Ammunition Plant
Restoration Advisory Board (RAB) Meeting
January 11, 2012
(Revised)**

1. Call to Order & Reading of Minutes

The Restoration Advisory Board (RAB) meeting for the Ravenna Army Ammunition Plant (RVAAP) was called to order by Tom Tadsen at 6:07 p.m. at the Charlestown Township Hall, Ohio.

Mr. Tom Smith made a motion to suspend the reading of the minutes of the previous meeting. The motion was seconded by Mr. George Tompkins. Tom Tadsen asked the board members if they had any additions or corrections to the minutes. Ms. Nina Miller made the correction that she was excused. Tom Tadsen called the motion to question... "All those in favor please say 'Aye'. "All those opposed?" The motion carried, and Tom Tadsen announced the minutes were approved as printed with the correction.

Meeting attendance was recorded as 20 members present, 2 excused (Walter Landor & Bill Steiner) and 3 absent (Mr. James Mayer, Mr. Richard Poots, and Mr. Bill Miller).

2. General Business

Tom Tadsen announced that the next scheduled RVAAP RAB Meeting will be Wednesday, April 18, 2012 at the Paris Township Hall.

Mark Patterson announced that there is change in the works with National Guard Bureau (NGB) being involved with the cleanup program and there would be a new Army Point of Contact. This has been in the works for the past year and in particularly the last three months. NGB is very involved and will be taking over the program. Mark will no longer be the Army Co-chair or Base Environmental Coordinator (BEC) at RVAAP. Mark thanked everyone for the many years and applauded the dedication and interest the RAB members have shown over the years. He stated it makes sense that NGB would take over with the current wars and added that he is very grateful to the soldiers. Mark will keep the RAB members up to date regarding the program change. Right now the transition is in the government's hands.

Tom Tadsen seconded Mark Patterson's statement. Tom thanked the RAB members and public attendees as well for their interest. Mark Patterson thanked Tom Tadsen for his dedication and stated he enjoyed working alongside Tom.

Tom Tadsen wants the NGB to present at the April meeting and answer the question of who will be the co-chair?

Eileen Mohr stated that she has worked with Mark Patterson for a long time. She has dealt with many types of people and Mark has always done the best job possible for the facility and the public. Mark is conscientious, very honest, and it has been a pleasure working with him on this project. In my almost 30 years in a regulatory role, Mark has been one of the best people I have ever worked with and his integrity is beyond reproach. His presence and knowledge will be greatly missed. I would like to recognize Mark for all his hard work and everything he has done for the community and folks here. *The RAB members and public gave Mark a standing ovation.*

Tom Tadsen asked the board members if they had any further general business. No further topics were discussed.

3. Presentation by Shaw Environmental, Robert Harrison

Following the formal presentation, the RAB members proceeded with questions directed to Robert (Harry) Harrison. (To request a copy of the formal presentation please contact the undersigned).

- Tom Tadsen: Directed to Mark Patterson, at the point when NGB takes over... the work conducted on the funded sites should be seamless, correct?
- Mark Patterson: The money still comes from Army Environmental Command, this would not change. There should be no change in the work accomplished.
- Tom Tadsen: Can you explain the notification procedures for the demolition shots?
- Harry Harrison: Notifications go out 2 weeks in advance.
- Mark Patterson: We have a contract with Ravenna Fire Department and Christy Esler is involved with the notification process.
- Tom Tadsen: How big were the snapping turtles?
- Harry Harrison: Very big!
- Tom Tadsen: Does the board have any additional questions?
- Nancy Taylor: Looking at the rows of shells from the presentation, these would be popular at flea markets.
- Harry Harrison: There are guidelines to follow with every item found. We follow a stringent chain of custody and then we must have a certificate of the item being destroyed.
- Tom Tadsen: Items getting out into the public would become an emergency management issue.
- Jay Abercrombie: Why can't you work through the winter? Is it due to the magnetometer or people issues?
- Harry Harrison: Its many things, driving conditions, the base roads may need clearing and we can't access certain roads to get to where we need to work.
- Jay Abercrombie: What about in the wetlands does the magnetometer work?
- Harry Harrison: Yes, an example is Erie Burning Grounds where we put the magnetometer on a float. If it gets past about 4 feet deep then the accuracy is not good. Some of the ponds here are 8 -10 feet deep.
- Tom Tadsen: Does the audience have any further questions?

No additional questions were fielded from the public members.

4. Presentation by Mark W. Nichter, USACE and John M. Miller, EQM

Following the formal presentation, the RAB members proceeded with questions directed to Mark Nichter and John Miller. (To request a copy of the formal presentation please contact the undersigned).

Mark Nichter introduced Vicki Deppisch of the Ohio Environmental Protection Agency and John Miller of Environmental Quality Management, Inc. Mark Nichter presented the first 18 slides and John Miller started presenting at slide 19 "Future Assessment Activities" and proceeded until the end.

- Tom Tadsen: What is the difference in the straight line and the squiggly line on the slide (slide 7)?
- Mark Nichter: The squiggly line is a disconformity or unconformity (Format is from bottom up; i.e. rock sequences are older at the bottom) Mark explained how the Homewood, Sandstone, would have been laid down ie... geological setting.
- Tom Tadsen: Referring to slide 9, Potentiometric Map of Regional Aquifer, 1000ft. above sea level and does these have relevance to ground surface?
- Mark Nichter: Ground Elevations and topographic elevations are measured against mean sea level.
- Tom Tadsen: Hexavalent Chromium had a couple of different uses at RVAAP, correct?

Mark Nichter: Load Line 2 used Hexavalent Chromium to anneal metal projectiles.
Mark Patterson: Annealing process wastes were dumped at C Block Rock Quarry.
Tom Tadsen: Was Hexavalent Chromium used to treat the steam pipes?
Mark Patterson: Yes, that is correct. It is used as an anti-corrosive.

Tom Tadsen: Referring to slide 13, Current Site Conditions – Groundwater, North of LL1.
What is the area northeast of here?

Mark Nichter: Ramsdell Quarry Landfill.
Tom Tadsen: Does the board have any additional questions?
Nina Miller: Are there no monitoring wells in Trumbull County?
Mark Nichter: All in areas of concern are in Portage County and as we continue to investigate the nature and extent of contamination we work further away from the areas of concern. Some new wells with EQM are to be installed right on the line between Portage and Trumbull Counties.

Mark Patterson: We did not consider the county line but if we need to we will. Determination of well locations is based upon site knowledge, groundwater flow etc..
Dan Spicer: Out of 243 wells how many are shallow and how many are deep?
John Miller: 126 are unconsolidated shallow wells and the remaining are deep wells.
Dan Spicer: As for the data results, are these concentrations declining or the same?
Mark Nichter: 1996-2011 groundwater sampling events and data are consistent.
Dan Spicer: In the shallow wells or deep wells?
John Miller: We see fluctuation, but we are not seeing an increasing trend. We will of course have additional data to present at a later date.

George Tompkins: Portage County Regional Planning. Paris sits on top all your wells, are you going to put any wells outside the perimeter? Or go deeper, get below 920 feet? Water runs downhill, what's running off base?

Mark Patterson: We start at the source and move outward. At this point there is nothing to show any contamination is going off site. Current data shows nothing off post.

Mark Nichter: Under EQM's current contract, if groundwater is impacted and there is contamination off post, there are contract contingencies to deal with it.

John Miller: There are lots of questions EQM has to answer as we move forward.
Mark Nichter: We will come back with updates.

Tom Tadsen: The locations of additional wells, shallow vs. deep will create an impressive picture. This is a good step.

Mark Patterson: Ohio EPA has done offsite well sampling.
Eileen Mohr: Yes, we looked for target analyte list metals, explosives, propellants, and general water quality parameters (like sodium, chloride, etc.). We sampled 25-30 wells and did not find explosives or propellants in any samples.

Nina Miller: Was that done to the west, in Ravenna?
Eileen Mohr: East and South only, didn't go into Ravenna.
Todd Fisher: Regional flow to East so that was focus. It was tough to get available wells, well logs couldn't always be found, or often we were refused entrance onto the property.

Tom Tadsen: Good reason for refusal, tests like that you are legally bound to disclose if you sell property. The cut off levels for arsenic is 10ppb some results naturally occurring are 60ppb.

Eileen Mohr: Some elevated arsenic at one residence, so we went back then sampled homes on both sides of the residence, then some additional wells again. Drinking water standards are set for public water supplies and are not really used for residential wells. We used MCL's as a guide even know it's not enforceable.

Tom Tadsen: Does the audience have any further questions?
Lynn Kent: Edinburg, Outstanding job and I appreciate all you do.

Tom Tadsen: Christy, do you have anything to add regarding TAPP?

Christy Esler: I provided a brief summary. The Technical Assistance for Public Participation (TAPP) has been funded and as the RAB members remember they decided on a firm in Cleveland called Kelly Buck Company. The company is reviewing the current documents and upcoming projects. Kelly Buck Company will present at the next RAB Meeting and provide a list of project documents for the RAB members' final decision.

Tom Tadsen: If there are no other questions from the RAB members or audience we will adjourn. If anyone wishes to remain around for a moment after the meeting I will present a brief update on the RAMS memorial.

No other questions were fielded from the RAB members or audience.

Since there was no further business or questions, the meeting was adjourned at 7:46 p.m.,

Respectfully submitted,

Christy Esler
RVAAP RAB Administrator