

Finalized December 11, 2019

**Ravenna Army Ammunition Plant
Restoration Advisory Board (RAB) Meeting
16 October 2019**

1. Call to Order

The Ravenna Army Ammunition Plant (RVAAP) Restoration Advisory Board (RAB) meeting for the Installation Restoration Program was called to order by Mr. Tom Tadsen, of Franklin Township at 6:01 p.m. Wednesday, October 16, 2019 at Shearer Community Center, Paris Township, 9355 Newton Falls Road, Ravenna, OH 44266.

Meeting attendance was recorded as 18 members present, 4 excused absent and 3 unexcused absent. Public attendance was recorded at 4.

Tom Tadsen of Franklin Township asked if everyone received and had a chance to review the minutes from the last meeting. Mr. Tadsen stated he suggested some spelling and grammatical changes and asked the board members if they had any additions or corrections to the minutes. There were no comments or changes from the RAB members present. Dan Spicer of Paris Township made a motion to suspend with the reading of the previous meeting's minutes and they be approved as amended. The motion was seconded by George Tompkins of Paris Township. Tom Tadsen called the motion to question... "All those in favor please say 'Aye'," "All those opposed." There were no members opposed so the motion carried, and Mr. Tadsen announced the minutes were approved as amended.

2. Safety Minute

Mr. Kevin Sedlak, ARNG Restoration Project Manager at Camp James A. Garfield (CJAG), gave the safety minute discussion. The safety minute discussion covered fire extinguishers and smoke detectors. PowerPoint slides of the presentation can be found at www.rvaap.org.

3. Special Presentation, Kevin Palombo, Ohio EPA

Kevin Palombo of the Ohio EPA presented a Certificate of Appreciation to LTC Tom Tadsen, Retired, for his 23 years of service to the RVAAP Restoration Advisory Board. Mr. Palombo thanked LTC Tadsen for his service to the RAB, the Restoration Program at the former RVAAP and to the surrounding communities. LTC Tadsen's efforts have been instrumental to aiding the cleanup efforts and environmental characterization of the facility. His work ethic and site knowledge will be missed.

4. Special Presentation, MAJ Shaun Robinson, OHARNG, Garrison Commander, Camp James A. Garfield

Following the Ohio EPA presentation MAJ Shaun Robinson, OHARNG Garrison Commander, Camp James A. Garfield, presented LTC Tom Tadsen, Retired Community Co-Chair, with the State of Ohio Distinguished Service Medal. The award read "For

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outstanding, exceptional service from September 1996 to October 2019 as the Restoration Advisory Board Community Co-Chair for the Ravenna Army Ammunition Plant Restoration Program. LTC Tadsen has significantly contributed to the overall readiness of the OHARNG by conveying the military mission through outreach to community members and elected officials during his leadership on the RAB. His knowledge of and interest in the Restoration Program has promoted and advanced the progress of the Restoration Program allowing current and future military training on the facility. LTC Tadsen's dedication, professionalism and motivation are in keeping with the finest traditions of the OHARNG and the great state of Ohio."

Following the reward ceremony MAJ Robinson introduced Mr. Jed Thomas of Leidos and his presentation on the Facility-Wide Groundwater Monitoring Program (FWGWMP).

5. Facility-Wide Groundwater Remedial Investigation Report Approach, Jed Thomas, Leidos

Mr. Jed Thomas of Leidos presented an update on the Facility-Wide Groundwater Remedial Investigation Report Approach. To request a copy of the formal presentation please contact the RVAAP RAB Administrator at (330) 872-4411 or rmshreffler@chenega.com. Also PowerPoint slides of the presentation can be found at www.rvaap.org.

Following the presentation former Community Co-Chair Mr. Tom Tadsen, Franklin TWP, opened the floor for questions by RAB Members.

Mr. George Tompkins, Paris Township, asked the depth of the temporary wells. Jed Thomas stated that the depth of the temporary wells varies, but most are between 5-15 feet deep.

Mr. James Mayor, Garrettsville Village, asked about the map on slide 8. The slide showed the Conceptual Site Model of the Monitoring Well Network. Mr. Mayor asked if the wells on the south side of State Route 5 were included in this map. Mr. Thomas noted the wells in question were included on the map and pointed them out for clarification. Mr. Kevin Sedlak, ARNG Restoration Project Manager, also clarified the 4 wells on the south side of State Route 5 are still on federal property.

Mr. Mayor then asked if these wells (4 wells south of State Route 5) were included in the plume groups shown on slide 10. Mr. Thomas stated that the downgradient wells for LL12 (which includes the wells in question) are included in the area covered by the plume groups. Mr. Kevin Sedlak, ARNG Restoration Project Manager, also stated the preliminary plume group model shown on slide 10 was developed in 2016, prior to the installation of the 4 wells in question. Data from these wells and any wells installed after the preliminary plume groups were developed will be included to determine the final plume groups that will be addressed in the Remedial Investigation (RI) Report.

Mr. Tadsen asked what parameters were used to establish the maximum perimeters of the plume groups. Mr. Thomas stated fate and transport models were used along with other contributing factors such as common historical usage at the site. The objective is to

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find the horizontal and vertical extent of the contamination. Mr. Sedlak added wells are placed downgradient of suspect areas and wells. Once a well returns clean results or results consistent with background data this indicated were the plume stops. Mr. Thomas reiterated the plume groups shown were preliminary. The final plume groups and perimeters are being refined and modified and will be included in the final RI.

Mr. Kevin Palombo, Ohio EPA Representative to the RAB, pointed out the Ohio EPA is diligent in making sure groundwater is addressed at all RVAAP AOCs. Several wells from different AOCs may be grouped together in the same plume groups, but they are also being addressed at the individual AOC level.

Mr. Thomas then noted each sample from every well is run for specific analytes on an individual basis. The purpose of the plume groups is to identify and address any trends.

Mr. Dan Spicer Paris Township, asked about a recent article in the Record Courier where groundwater wells were tested at several military sites, including wells on the old Ravenna Arsenal, and were found to have high levels of a SVOC (semi-volatile organic compound).

Mr. Sedlak addressed this question clarifying the samples were taken from 4 drinking water wells in the main cantonment area. These drinking water wells are no longer used because the main cantonment area has been hooked up to the Windham City water system. The chemical of concern in this study was a group of chemicals known as PFAs (per- and polyfluoroalkyl substances), or “forever chemicals”. Firefighting foam used historically on the facility contained PFAs. This is a large group of chemicals, most of which have not been thoroughly studied therefore regulating agencies have no current data or research to set healthy exposure levels. Some types of PFAs are included in the U.S. EPA’s health advisory, so in most cases those levels are used for PFAs that have not been studied. These chemicals are also widely used in household items such as Teflon, food packaging, clothing and furniture fabrics, soaps, shampoos and cleaning products. These are emerging chemicals and expected to get increasing media coverage. Mr. Palombo added Ohio Governor DeWine announced his office will be creating a work group to research this specific issue. Ohio is being very proactive on this issue.

Following this discussion Sarah Lock, Paris Township, asked if the Facility-Wide Groundwater samples were screened using background values, and if so where the background samples were collected on the facility. Mr. Thomas stated there are background wells, most of which are toward the northwest portion of the facility. All background wells are in areas where there is no record of any historical operations. Kevin Sedlak also added all background wells have been tested with a full suite of analytes to make sure they are clean.

Mr. Joe Beutler, Charlestown Township, asked what factors determine the depth of the wells? Mr. Thomas answered there are multiple factors. The FWGWMP and the restoration program as a whole has gone through several phases of investigation. From 1990-2004 much of the groundwater investigation was to identify source areas of potential concern and extent of exposure. There is no black and white matrix to go by, but understanding migration, flow patterns and investigate down gradient from potential

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exposure. Mr. Tadsen added the FWGWMP also looked at the dynamics of various compounds and how fast they move.

James Mayer, Garrettsville Village, asked how they keep different aquifers contained in the vertical shaft of the well from contaminating each other? Mr. Thomas answered there are processes to prevent vertical contamination when drilling and sampling the wells. Mr. Sedlak added there is a surface casing for each well. A casing is put in place for each layer encountered, i.e. bedrock, clay, sediment. Then the well is advanced through the casing so there is no migration between aquifers. The casing seals off each layer. Wells that are no longer needed have been or will be abandoned so there is no potential for contamination. Mr. Thomas added they goal is to get to an efficient number of wells. Currently there are 300 FWGW monitoring wells.

Brian Miller, Windham Township, asked where run off goes and if it is monitored if it goes outside the facility? Mr. Thomas answered AOC specific surface water and sediment investigations in the early 2000's addressed the issue of run off from the facility. There has been some sediment removal, but most areas were clean. Mr. Palombo pointed out the table in Attachment 3 of the additional materials hand out. This table lists site, Chemical of Concern (COC), quantity of soil removed, and year performed for CERCLA remedial activities that have been conducted at the facility. Each of these actions included excavation of contaminated soil and sediment which was then taken off site for disposal. Mr. Tadsen also added areas that posed the biggest concern were capped and will be monitored and maintained. There are also Land Use Controls to ensure there is no invasion and the integrity of the cap remains in place.

Community Co-Chair Tom Tadsen asked if there were any further questions or discussion. There was no response. This concluded the discussion on the update on the Facility-Wide Groundwater Remedial Investigation Report Approach.

6. General RAB Business

Ms. Sarah Lock, Paris Township, gave a presentation on the suggested revisions to the RVAAP RAB Operating Policy. To request a copy of the formal presentation please contact the RVAAP RAB Administrator at (330) 872-4411 or rmsheffler@chenega.com. Also PowerPoint slides of the presentation can be found at www.rvaap.org.

The board discussed the changes suggested in the presentation. There were also further edits suggested by members present. It was decided by the board a final edit, including all changes, would be sent to the Operating Policy Committee (established at the 22 May 2019 RAB Meeting) for review.

The last order of business was scheduling the next meeting. Tom Tadsen Community Co-Chair suggested next meeting be held in December and strictly be for discussion and vote on the changes to the Operating Policy. Dan Spicer, Paris Township brought a motion to the board to have the meeting the second Wednesday in December, the 11th, from 6:00-7:00PM. The motion was seconded by George Tompkins of Paris Township. Tom Tadsen called the motion to question... "All those in favor please say 'Aye'," "All those opposed." There were no members opposed so the motion carried. Tom Tadsen

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suggested the meeting be held in the current Headquarters Building Conference room, Camp James A. Garfield, 1438 State Route 534 SW, Newton Falls OH.

There were no further comments, discussion or general business topics.

The meeting was adjourned by Tom Tadsen at 7:54 p.m.

Respectfully submitted,

Rebecca Shreffler, RVAAP RAB Administrator

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