FINAL

Ravenna Army Ammunition Plant
Restoration Advisory Board (RAB) Meeting
19 May 2021

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 the Community Co-Chair Ms. Sarah Lock, of Paris Township at 6:06 p.m. Wednesday, May 19, 2021 virtually using Microsoft TEAMS.

Of the current 21 RAB members meeting attendance was recorded as 12 members present, 4 excused absence and 5 unexcused absences. Public attendance was recorded at 3.

The first order of business was approving of the December 11, 2019 and August 19, 2020 meeting minutes. Sarah Lock of Paris Township ask the members present if there were any comments or changes to the minutes from the December 11, 2019 meeting. There were no comments or changes to those minutes. Bill Steiner of Randolph Township made a motion that the minutes be approved. The motion was seconded by Tom Tadsen of Franklin Township. The motion was called to a vote. No members opposed so the motion carried, and the December 11, 2019 meeting minutes were approved. Sarah Lock of Paris Township then ask the members present if there were any comments or changes to the minutes from the August 19, 2020 meeting. There was a correction made to the date of next scheduled meeting in these minutes. There were no further comments or changes to these minutes. Bill Steiner of Randolph Township made a motion that the minutes be approved as amended. The motion was seconded by Dan Spicer of Paris Township. The motion was called to a vote. No members opposed so the motion carried, and the December 11, 2019 meeting minutes were approved.

There was also a change of membership discussed. Unfortunately, Mr. Joeseph Beutler, Charlestown Township Representative, has some health issues that limit the time he is able to commit to the RAB. He has asked that the Charlestown Township trustees appoint another representative. Rebecca Shreffler, RAB Administrator, has contacted the Charlestown Township trustees to name a replacement representative.

Ms. Sarah Lock, of Paris Township introduced Mr. Tim Naughton of Endpoint Consulting, to present on the VEG remediation technology and use at the Former RVAAP. She also reminded members to hold all questions to the end of the presentation.

2. Presentation – VEG Remediation Technology and use at the Former RVAAP, Tim Naughton, Endpoint Consulting

Tim Naughton of Endpoint Consulting then gave a presentation on the VEG Remediation Technology and use at the Former RVAAP. To request a copy of the formal presentation please contact the RVAAP RAB Administrator at (330) 872-4411, rmshreffler@chenega.com or visit www.rvaap.org.

Following the presentation Ms. Sarah Lock (Paris TWP) thanked the speaker and opened the discussion for questions by RAB Members. Public members were asked to hold any questions until after all member questions.

Tom Tadsen of Franklin Township stated his understanding is there will be no restrictions on use of the treated soil once it is treated and stockpiled on the installation, is that correct?

Mr. Naughton answered that is correct. The goal is to meet the clean-up standards for the site by putting treated soil back in place and matching the native vegetation at the site.

Kevin Palombo then had a couple questions. He asked what volume of soil can be treated at one time. Mr. Naughton explained it is a continuous feed system so they anticipate 100-150 cubic yards at a time. There is a screw conveyer, so the soil is loaded in and moves continuously.

The next question was if treating vegetation or large rocks in the soil is a concern. Are those things separated out? Mr. Naughton answered the system can handle a certain size cobble or rock and he hasn't seen anything at the site over that size to be of concern. The issues arise with larger boulders that need to be screened out. As for vegetation they will be mowing treatment areas as much as possible to remove most of the vegetation and debris. These kinds of organics add moisture to the system which does slow it down, but the heat does destroy the vegetation. The only issue is it can slow the process if there is a lot of organic material.

Kevin Palombo then asked if grain size affected treatment. With this system is it the coarser the grain size the more effective the treatment? Mr. Naughton answered grain size does play a big role in ability to heat the soil. If it is all homogenous fine grain material it takes longer to treat the soil. At some sites they have used lime as an additive to dry and break up the mixture of the soil to speed up the process. This system works best with heterogenous soils with coarse grain material.

Kevin Palombo then asked Mr. Naughton to explain the verification sampling. Following excavation they will be conducting verification sampling on all of the excavation site (ie the floor and sidewalls left after excavation) to be sure the predefined limits of concern are all below the target goals for each area of concern. This defines the extent of area excavated at each site. Then the treated soil is stock piled and tested on site with a PID (photoionization detector) and a temperature gauge to get a benchmark reading and as much real time data as possible. Then laboratory samples will be conducted to confirm the soil is clean before it will be taken back to the site and backfilled.

The last question from Kevin Palombo was how the temperature in the treatment system is monitored and controlled to maintain temperature. Mr. Naughton explained the temperature of the systems output is relatively constant. The outlet of the VEG system that goes into the treatment chamber is generally easy to maintain and constant at around 1400 degrees. The system does require monitoring with that high of temperature but generally once it is up and running there is minimal adjustment and it can run for 8-10 hours without issue. On the other hand the soil output is constantly checked with the PID and temperature gauge to make sure it is reaching target temperature. If anything needs

fine tuning it is the throughput speed that determines the length of time the soil is in the treatment system. So the temperature is constant but the time the soil is heated can be adjusted.

Next Eileen Mohr of Kent had a few questions regarding the excavation and stockpile sampling. What kind of samples will be taken and what analytes are tested for? Mr. Naughton explained the samples for both excavation confirmation and treated soils will be tested for the target analytes as defined through previous remedial investigations. In terms of sampling methodology being applied for the treated piles of soil will be and eight point composite per every 100 yards of soil. For the excavation samples they will use incremental sampling methodology. This method collects a large quantity of samples along a specific pattern to get to a solid representation of what the mean of the contaminates is in that sample field.

Ms. Mohr then had a follow up question regarding the 8 sub samples in the stock piles of treated soil. She asked Mr. Naughton to explain the rationale behind using 8 sub samples per 100 cubic yards versus using a larger number like 20-30. He then explained statistically 8 is sort of the "magic number" where you get past the threshold of a composite sample and get a more accurate measure of the mean. Generally speaking that is usually the number used when doing composite sampling.

Sue Netzly-Watkins with the Ohio EPA added to Mr. Naughton's explanation by stating the final RD (Remedial Design) report is available on REIMS (Ravenna Environmental Information Management System), if you look at table 4-, PDF page 422, it lays out all of the different sites that will be going through the VEG and the proposed sampling and analysis for each AOC. This table is a great place to look for many of the questions asked regarding sampling and analysis.

Mrs. Netzly-Watkins also noted that in the presentation there were only 4 AOCs noted and there are actually 5 covered in the report. Mr. Naughton agreed and explained the slides focus was the VEG technology. The 5th site, the Depot Area, all that material will be removed from site.

Ms. Mohr then asked how the samples would be collected and how much volume would be collected. Mr. Naughton explained they will be using a step probe for the incremental (excavation) samples. For the stock pile composite sampling they will be using a hand auger to about mid depth of the pile then the hand auger bucket to collect the sample. The bucket is roughly 3 inch diameter and about 6 inches long so the sample volume is roughly a couple water bottles worth. This was just to give a rough idea.

Tom Tadsen of Franklin Township asked Mr. Naughton to discuss protection for the operators in the field in case of emergency. Mr. Naughton explained safety is a big concern for them given the high heat and all that goes into maintaining those temperatures. There are safety valves installed on the system that allow for the loss of gas and water. The biggest concern is the loss of air which pushes gas into the system and can become a dangerous situation. There is a safety feature where if the air shuts off it will shut a valve and shut the gas off as well. It is also constantly monitored while in operation. The flow of gas is also relatively low, roughly 5-10 gallons of propane a day, so

it takes a long time for gas to build up. The system itself is also very loud so hearing protection is used. Other than that all equipment on site is small construction equipment, such a bobcats, and use general construction safety procedures. There are also traffic flow patterns and equipment designations to keep pre-treated and post-treated soils separated. The site is also caution taped off to ensure no unauthorized personnel access the site while the VEG system is in use. Again the major safety concern is heat as the system generates high temperatures. There is also a dedicated Site Safety Health Officer.

Sarah Lock pointed out during the presentation Mr. Naughton referenced a lime caustic solution that would sometimes be used and stated it would result in a "relatively benign output". She asked if he could further explain this in laymen's terms. He explained in and ideal scenario you would have an acid meeting base and create a neutral solution. So the term relatively refers to the concentrations in the soil. The phrase is a generalization, the reality is these materials can go off (site) as non-hazardous material that can be disposed of at any landfill or it can go off as hazardous depending on concentrations of analytes in the soil. The materials are all tested and handled as appropriate. Also this will not be used in treatment on the Ravenna project.

Sarah Lock asked if there were any further questions or discussion from the board. There were no responses. Ms. Lock then opened the discussion to allow questions or comments from any public attendees. There were no further questions or comments. This concluded the discussion on the presentation. Sarah Lock of Paris Township then moved onto the RAB general business.

3. General RAB Business

1. The first order of general business to discuss was membership changes. Ms. Lock reminded the board that Joe Beutler the Charlestown Township representative had stepped down. Other resignations received were general public members George Tompkins and Rebecca Carter. Rebecca Shreffler, RAB administrator notified the trustees of Charlestown had not had a formal meeting to appoint a replacement but were planning to discuss at their next meeting. After the May 19, 2021 RAB meeting the Charlestown Township trustees did meet and appointed Mr. Adam Eskridge as the Charlestown representative. Ms. Shreffler also notified the board the current member vacancies have been advertised in 2 public notices in area newspapers and on the website but thus far we have not received any membership interest surveys. There are 2 general public vacancies.

   Ms. Lock also asked the board if there were any comments or suggestions on how to spread the word about the vacancies. She also suggested the township trustees mention these vacancies at their next meetings. It was also suggested the administrator contact The Portager for an advertisement or article, which has been completed.

2. The next order of business was scheduling the next meeting. Ms. Lock suggested the next meeting be planned as an in person meeting with the option of transitioning to virtual if the need arises. Ms. Lock then asked Katie Tait and Kevin Sedlak if there were

any upcoming projects or activities that would guide a decision on when to hold the next meeting.

Kevin Sedlak stated the VEG project would be done by the end of July. Both Kevin Sedlak and Katie Tait agreed there are projects that will be in the early planning stages but not much field activity. With this information Ms. Lock asked if there would be a need or opportunity for a site tour this year. Ms. Tait indicated in this timeframe there are not many remediation field work activities and they would need to look at scheduling. Ms. Lock suggested a site tour be postponed.

With this Sarah Lock suggested the next meeting be scheduled in September 2021 and asked if there would be sufficient agenda items for discussion to warrant a meeting. Ms. Tait indicated there are always updates to projects that would be sufficient for a meeting and can be chosen closer to the date. The board decided the next meeting will be held on September 15, 2021 at 6pm. Ms. Lock then asked for a township volunteer to host the meeting. Dorene Spicer offered the Shearer Community Center in Paris Township for the meeting location. RAB Administrator Rebecca Shreffler will inform the board of further details closer to the meeting date as they become available.

Ms. Lock then reminded the board about a great resource for information on the RVAAP restoration program, www.rvaap.org. She encouraged the members to take some time exploring the website and available information.

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

The meeting was adjourned by Sarah Lock at 7:16 p.m.

Respectfully submitted,

Rebecca Shreffler, RVAAP RAB Administrator