

**IOWA ARMY AMMUNITION PLANT
RESTORATION ADVISORY BOARD
MINUTES
April 20, 2010**

The Restoration Advisory Board meeting was called to order by Rodger Allison at 5:05 p.m. on April 20, 2010 at the Winegard Board Room located in the Burlington/West Burlington Area Chamber of Commerce.

Minutes Review

The minutes were accepted as written.

Agenda Review

There were no changes to the agenda.

Public Comment

No comment at this time.

FUSRAP

Ron Frerker briefed the RAB from a slide presentation. Please see exhibit 3 for his presentation.

Ron's presentation centered on FUSRAP's excavations at the West Burn Pads South (WBPS). They have excavated approximately 15,000 tons of soil so far. Some soil was taken to the onsite Inert Disposal Area (IDA), some to an EPA approved landfill in Rock Island, and some is staged (approximately 6,000 tons) at the WBPS awaiting barium treatment/disposal. Approximately 7,000 tons of soil still needs excavated.

Mark Hagerla asked what kind of contamination is being excavated. Ron replied that low level RDX, some TNT, and barium contaminated soil is being excavated.

Vaughn Moore questioned where the excavated soil was stockpiled. Ron explained that the soil is stockpiled in the excavation. Vaughn asked if there was a way to catch accumulated water/rainfall. Ron replied that, since the soil is stockpiled in the excavation, the excavation catches the rainfall.

Sivert Iversen asked where the barium contamination came from. Ron explained that barium is a chemical constituent of explosives. Sivert asked if the barium came from the Army side. There was discussion about the A versus B side. Vaughn Moore clarified that the "A" side references the West Burn Pads. Vaughn further indicated that the East Burn Pads was used by AEC and the West Burn Pads was used by the Army. Vaughn added that it [barium] came from the flash burning done at the West Burn Pads Area. Rodger Allison added that, historically, AEC operations used a high quantity of barium; much more than the Army. Rodger questioned if the level of barium contaminated soil that we are looking at would have come from flashing. Ron was unsure, he only knows that it is migrating in the environment and they need to remove it. Ron said they are only seeing it very high in a few areas, but they are seeing a TCLP failure (Ron explained the TCLP procedure). Ron added that this is extremely soluble material.

Hans Trousil said that the pictures in the slide presentation looked like a clay deposit was hit. Ron replied that it seems like it can't penetrate the clay to some extent. He further explained the movement they saw along a preferential pathway which they dug up. The permeation should be a pretty much long time frame; the hope is to get to it fairly quickly.

Hans Trousil asked what the size of the [WBPS] is. Ron said the WBPS is approximately 12-15 acres. Ron further added that the majority of the contamination was found between the road and the small tributary.

Paula Graham wanted to know how far this material migrated from the places FUSRAP excavated. Ron explained that it is hard to tell, and that there probably has been migration through the years since the contamination levels are low. Ron further indicated that they are cleaning up for the protection of groundwater. It more than likely will not have a deleterious effect on the groundwater. In this particular case, it will affect the surface water running into the tributary, and more than likely, through the years there has been a little bleed off slowly through the clay. Paula wanted to know where this tributary goes to. Rodger Allison stated that the tributary runs into Spring Creek. Paula asked if the tributary makes its way to the lake. Rodger indicated that we are referring to Spring Creek, which does not feed a lake; Long Creek feeds Lake Mathes.

Thurman Huffman asked what the low point is at the site. Ron said that the tributary is the low point. Thurman asked if it ran southwest. Ron indicated that the tributary runs southeast.

There was some discussion about where the West Burn Pads Area is located within the Explosive Disposal Area.

IRP Project Update

Rick Arnseth briefed the RAB from a slide presentation. Please see exhibit 4 for his presentation.

IDA Trench 6 Seddam Uncontrolled Release

Paula Graham questioned the levels of metals and where they came from. Rick said the metals they found were iron, aluminum, and copper – a number of metals that came out of the treated soil. Rick added that they think the chemical soil treatment resulted in some of the metals being leached out of the clay minerals, and then when the rains came it washed them into trench 6 main pool in a particulate form. Rodger Allison added that as part of the soil treatment, they raise the pH of the soil, and that allows the water to flush metals out that way. Rick added when they raise the pH, it destroys some of the clay minerals in the soil. Paula said she asked the question because they used quite a few metals in operations. Rick said these wouldn't have been metals of concern, other than the fact that they ended up in the water treatment system.

Vaughn Moore asked how much water escaped. Rodger responded that somewhere in the vicinity of 100,000-300,000 gallons. Dan Cook added that IDNR took samples way after it happened. Tetra Tech also took sediment and surface water samples and the concentrations detected were very low.

Mark Hagerla asked whose responsibility it is to notify the IDNR. Rick responded that it is his responsibility to notify Rodger and then Rodger contacts IDNR. Mark asked what the delay time was for contacting IDNR. Rick said that it was not timely.

Brush Creek Surface Water Monitoring

Mark Hagerla asked the status of finding the sources of contamination in the creeks when it rains. Rick responded that we don't have a real good answer right now. We continue to sample and assess the results but they do not lead us to any consistent source. It appears, so far, that it is a cumulative effect with no particular point sources. We recently found elevated levels as we were helping FUSRAP answer why they were getting so much water in one of their excavations on Line 1. Mark questioned if this was the area FUSRAP started cleaning out last year and they ran out of money. Ron spoke about one area in particular where they found high RDX contaminated water (source unknown) entering their excavations. FUSRAP had to stop excavating and put gravel in their excavation adjacent to building 1-70 because the water could contaminate the clean soil that they put in as backfill. Ron said they should know more this summer when they take more samples. There is a contaminated waste trough leading to this building that will be removed this summer. Ron went on to talk about a pipe near building 1-08-1 that released contaminated water over an area that FUSRAP excavated. He said that may be re-contaminating the clean soil. Thurman Huffman said he used to run building 1-70 and can answer any questions.

Vaughn Moore added that he and Thurman have been talking and they think that the RDX from the melt buildings could have leached down and created a groundwater plume, and the underground tunnel is making a dam situation and is leaching past that a little at a time.

Off Post Land Use Controls

Rodger Allison briefed the RAB from a slide presentation. Please see exhibit 5 for his presentation.

Mark Hagerla asked what an MOU is. Rodger explained that "MOU" stands for Memorandum of Understanding and it will outline the process for the State to evaluate the well permit requests in the offsite area.

Mark Hagerla made a comment about the people that were hooked up to Rathbun who wanted the Army to pay for their monthly water bills. He stated that these people wouldn't have to pay for their water if the Army hadn't contaminated it.

Vaughn Moore asked what the Army was going to do about the aquifer south of the plant. Vaughn said that the Army ran rural water and gave the people of Augusta water, but the Army hasn't capped their wells and those wells are contaminated and that means that plume is still down there where it [brush creek] is losing. Vaughn wanted to know how the Army is going to address this and asked if this means the contamination will go under the Skunk River into Lee County or is it going to stay where it is at. Vaughn further added that the Army tested their wells and they were contaminated so that means that the aquifer is contaminated. Rodger explained that there has been a misconception, and the Army didn't hook everyone up to Rathbun because their wells were contaminated; that is not the case at all. The Army offered this connection because of cost. It would have cost more to sample and characterize their wells than it would cost to just hook them up to Rathbun. This was because of the timing of Rathbun running their

main lines through that area. It was cheaper to just hook them up to Rathbun water; it wasn't because they found contaminants in their drinking water wells. The Army only found contaminants in wells that were along Brush Creek. There were two residences near Brush Creek where contamination was found. One was right on Brush Creek and 1 residence a little bit down gradient where they found any contamination back in 1998. The only other residents that had contaminants found in their wells were two that were to the west of Augusta on a tributary to Skunk River. However, there were none in Augusta.

Vaughn Moore mentioned there were several people in Augusta where the State sampled their wells and they said the results were not good. Vaughn said the Army was down there monitoring the wells all the time. When they hooked up to rural water, their wells had to be mandatorily capped. Rodger said that he is not familiar with that, if they were denied use of their wells that would have been through the county.

Hans Trousil asked if there are still monitoring wells in that area. Rodger said, "Yes, there are a number of monitoring wells throughout the plume and even outside the plume that we monitor regularly."

Hans Trousil asked about the aquifer and wondered what kind of aquifer it is. Rick said that it is not a bedrock aquifer; it is a gravel aquifer that is only about 60 feet deep and is pretty shallow. Paula Graham asked how far the water is running from this. Rick indicated that the Mississippi is controlling the direction of the flow. Rick added that the impacted aquifer is approximately 60 feet deep. It doesn't have a name and isn't a "regional" aquifer where people would put in big wells to supply water to a whole city. Paula said that she thought there were several small aquifers under the plant and some were used by the plant. Rick said he thinks those aquifers are pretty deep. Paula said that she lives in Lee County and is concerned about the water supply because she sees what all the toxic substances do to people's health. Paula added that one time she asked at one of these meetings if any contamination had got into an aquifer and people assured her that it hadn't and now she hears that it has gotten into an aquifer. Rick explained that the aquifers that most municipal systems would tap into have to be very deep, much deeper than this. Dan Cook added that there are a lot of cities that use alluvium aquifers just like this. Rick clarified that this aquifer is not being used by any water system.

Paula Graham said that she has a son-in-law that grew up in West Point, IA and they use to refer to West Point as a "cancer pocket". She said that West Point use to be on an aquifer and the people wondered if they were getting contamination from the plant in the aquifer. The water was so bad that the town went off of it and got Rathbun but some people still used their private wells.

Paula Graham referred to the "hot spot" wells (the dark pink area of the plume), and questioned if the government has an obligation to help the people that have cancer caused by toxic substances (like a farmer) who used the contaminated groundwater for years. Rodger said he would have to defer the question to the Department of Labor because they specialize in addressing worker health. Paula said that the situation she was referring to was not a worker health issue. Paula then mentioned the gentleman who came to her wanting to file a claim. She knows that he lives in the dark pink area of the plume and is dying of cancer. Rodger said we can help direct her to the right folks, but to answer the questions, we would have to defer her to the specialists. LTC Hewitt added that they will go back and talk to the lawyers and give her the proper contact. Rodger explained the tort claim process.

Lueene McCracken asked if we know how many people who live in that area have gotten sick. Rodger responded that, no, we do not.

Mark Hagerla asked the LTC Hewitt if the Army has an office where a citizen who has a complaint against the State Dept, they can go for assistance with the footwork and defray the costs of legal work. LTC Hewitt said he would have to check, he is sure there is a point of contact to get started, he is unsure if there is a fund or a dept to pay for the legal costs. He will go back to JMC legal and get all the right information on the right POC's and the process.

Matt Jefferson added that the Department of Health runs studies for things like this. Matt can discuss this option later after the meeting if they are interested in going this route.

MMRP

Terry Thonen briefed the RAB from a slide presentation. Please see exhibit 6 for his presentation.

Operable Unit Restructure

Matt Jefferson briefed the RAB from a slide presentation. Please see exhibit 7 for his informational briefing.

Mark Hagerla asked how Matt evaluates that everything is going the way it is suppose to. Matt responded that he provides reviews and provides approvals on work/reports.

Mark Hagerla asked if Matt performs site visits/evaluations. Matt indicated that they do provide oversight on various things. For example, last year when Tetra Tech capped the CEA, EPA had someone at the site performing oversight to ensure they were doing the cap correctly per specifications in their plans. Rodger Allison added that we hold monthly PM Meetings, pursuant to the FFA, and EPA comes onsite to attend the quarterly PM Meetings in association with the RAB Meetings.

Mark Hagerla asked if Matt refers to himself as a rubber stamp regulator. Matt responded that he would defer this to the people who end up getting his comments, which can sometimes be 30 pages of comments. He said, if a document gets to him with major flaws, then they hold conference calls. Mark added that he just wanted to get a feel about how Matt handles things being he is a new regulator to IAAAP and they were pretty acquainted with the previous regulator, Scott Marquess.

Old Business

Elyn introduced and welcomed aboard the new RAB members: Hans Trousil (current West Burlington Mayor), Vaughn Moore (former IAAAP Security Guard), Sivert Iversen (former IAAAP Line 1 employee), Kim Perlstein (Des Moines County Conservation Board Director), and Alan Koenig (former draftsman for IAAAP operating contractor).

Public Comment

Vaughn Moore said he has talked with several people that are concerned about the material being taken to the Des Moines county landfill from Lines 5A and 9 buildings that are being torn down. Rodger explained that surveys are done on the buildings to ensure that all mercury ballasts are removed as well as asbestos. They also assess the buildings and ensure anything left in the buildings are removed and they do all this before the building is torn down and the debris is taken to the landfill. Vaughn questioned if the cement was checked. Rodger said, yes, and explained the process using the product called Exspray. Rodger further explained that there are some buildings that did not come down in the latest round of work because they had too much explosive contamination. Rodger added that we reuse clean concrete for rip rap or road base if the samples determine the material is reusable. If it is contaminated, it follows the proper pathway for disposal. Paula Graham asked if they were tearing down change houses but not all the buildings on the line. Rodger responded that she is correct, and if there are any elevated levels of explosives that create a hazard, they left them for now and will eventually go back in and take those down. They are trying to get rid of buildings/material that is falling down anyway. The Army also wants to create room for future growth so they can remain viable for their mission. Paula asked what lines were being torn down. Rodger said that Line 7 has been torn down and they are currently working on lines 5A and 9. Vaughn asked if we are running into a lot of Tetryl on line 5A. Rodger responded that he is not familiar with the exact data; he would have to go and look.

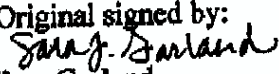
Next Meeting/Draft Agenda


The next meeting was scheduled for July 20, 2010 at the Winegard Board Room located in the Burlington/West Burlington Area Chamber of Commerce. Agenda topics suggested were IRP project update, FUSRAP update, CC Update, and possible training session for the new RAB members.


Rodger will try to arrange a site tour. He will send an email with possible dates to the board.

Rodger mentioned that he has an action item to check with legal and get some information to Paula. Matt added that Rodger might want to address the historical sampling the Army has performed off post that might be able to answer some of the questions that came up during tonight's meeting.

The meeting was adjourned at 7:30 p.m.

Original signed by:

Sara Garland
Secretary

Original signed by:

Elyn Holton-Dean
Community Co-Chair

Original signed by:

Rodger Addison
Army Co-Chair

- Exhibits: 1 Attendees
- 2 Agenda
- 3 FUSRAP
- 4 Restoration Project
- 5 Off Post Land Use Controls
- 6 MMRP
- 7 Operable Unit Restructure

Exhibit 1

RAB MEMBERS PRESENT

Mark Hagerla
Elyn Holton-Dean
Eric Orth
Vaughn Moore
Alan Koenig
Sivert Iversen, Jr.
Kim Perlstein
Hans Trousil

RAB MEMBERS NOT PRESENT

Marjorie Fitzsimmons
Dean Vickstrom
Bruce Workman

GOVERNMENT MEMBERS PRESENT

LTC Tommie Hewitt, Jr.
Rodger Allison
Matt Jefferson
Dan Cook

GOVERNMENT MEMBERS ABSENT

Dan McGhee

PUBLIC

Linda Wobbe
Terry Thonen
Thurman Huffman
Ryan Drew
Paula Graham
Lueene McCracken
Steve Bellrichard
Butch Hicks
John Carroll
Tammy Allison
Junichi Urasoe
Dean Treadway
Cyril Onewokae
Sara Garland