

RESTORATION ADVISORY BOARD MINUTES

June 13, 2023

The Restoration Advisory Board (RAB) meeting was called to order by Hans Trousil at 9:01 a.m. on 13 June 2023. This meeting was held in person at West Burlington City Hall in West Burlington, Iowa. Hans started off the meeting with Pledge of Allegiance. He then asked Jeff Morrison (Jacobs) how many had called in to the meeting via Teams: Wes March (EPA), Darlene Abbott (Aerostar) and Gene Ng (Jacobs) were online for today's meeting.

Minutes Review

There were no corrections to the minutes from April 2023, and there were no public comments.

Agenda Review

There were no corrections to June agenda.

Environmental Services Update

Jeff Morrison of Jacobs presented an update on the two projects his team is working on: Environmental Services at IAAAP, and the off-post bioremediation project at Operable Unit (OU) - 3.

Jeff shared a slide with a list of the current OUs at IAAAP to remind everyone since those are discussed heavily during these presentations. He then updated the team on where the various Remedial Investigation (RI) reports stand for the Jacobs team:

- OU-6: Responded to EPA comments and will submit Draft Final RI report to EPA in June.
- OU-7: Working through response to comments (RTCs) with USACE on internal Draft RI report.
- OU-10: Submitted Draft Final RI report November 2022. Awaiting comments.
- OU-11: Will submit internal draft Supplemental RI Report to Army for review in June.
- OU-12: Will submit internal draft Phase 2 RI Report to the Army in late June.
- Compliance Cleanup (CC) Program: Continued working on Draft RFI report for CC-06 (DA/DF sites). Internal draft RFI will be submitted to Army in July.

Jeff updated the team on the status of several in-progress tasks:

- Submitted Draft OU-4 Feasibility Study (FS) report to EPA in March 2023. Awaiting comments.
- Responded to comments from EPA on the Draft Final 2022 Annual Groundwater Monitoring Reports for Ash Disposal Cell within Trench 5 for OU-4 RCRA. Will submit redline final version of report in June. In meantime, conducted 2023 annual monitoring in May.

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- Responded to EPA comments on Draft OU-1 Remedial Goal (RG) tech memo. Submitted RTCs and redline draft final last week.

Jeff informed that there wasn't much to update since the last meeting about the Site Inspection (SI) that is underway emerging contaminants called per- and polyfluoroalkyl substances (PFAS) at IAAAP:

- A Site Inspection (SI) is underway for emerging contaminants called per- and polyfluoroalkyl substances (PFAS) at IAAAP
 - Five newly installed monitoring wells and 10 existing monitoring wells were sampled at the former Fire Station, Fire Training Pit (FTP), and the IDA in December 2020
 - Received approval from EPA on draft final SI report and finalized SI in December 2021.
 - Due to screening level exceedances, additional investigations are recommended at each site and RI planning will begin in early 2023.
- A fourth area of potential concern (new Fire Station) was included in the revised Final PA report and is being addressed in an SI Addendum.
- Draft Final QAPP worksheets were approved by EPA and fieldwork scheduled for August 2023

Jeff then filled the team on the progress of the PFAS RI:

- Technical planning process (TPP) meeting was held with EPA in May to present the proposed scope for the RI at all four sites (including new Fire Station).
- Draft QAPP anticipated for submittal to EPA later this summer.
- RI fieldwork anticipated for late 2023 or early 2024.

OU-3 Optimized Remedial Action

Jeff provided an update on the OU-3 Optimized Remedial Action project, which is for the enhanced bioremediation at the off-post RDX plume. Jeff presented a new slide based on questions from the last RAB meeting with an overview of the OU-3 remedy:

- Record of Decision (ROD) signed in 2005 selected enhanced degradation (ED), monitored natural attenuation (MNA), and land use controls (LUCs) as the remedy for RDX treatment.

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- Tetra Tech performed initial ED injections between October 2007 and October 2015. Most recent injections performed by Jacobs in 2022.
- Annual GW monitoring conducted by Aerostar (2015-present)
 - Monitoring shows plume footprint has been reduced in size by approximately 42%

GW plume extents are bound by:

- MW-502 to the north
- MW-136R to the east
- MW-408R to the southeast
- MW-513 and MW-514 to the south
- MW-509 and MW-501 to the west

Aerostar has been conducting monthly SW sampling of Brush Creek since 2015.

Since 2015, the average RDX concentrations in SW at the installation boundary have decreased from 9.4 µg/L to 7.4 µg/L (FY22).

Jacobs is implementing the current OU-3 RA Finalized Optimized Remedial Design for OU-3 to implement additional bioremediation injections within the 50 ug/L RDX “hot spot” area:

- Installation of 20 new injection wells along north and south side of US Hwy 61 completed in Summer 2022
- Conducted one round of baseline sampling in May 2022 prior to injections in July 2022.
- Conducted third round of performance monitoring in April 2023.
- Next performance monitoring event scheduled for July 2023.

Jeff showed figure of the overall plume and then an updated closeup figure showing the area with the RDX hotspot underneath US Hwy 61 and the injection well locations for the remedial action. Jeff then showed a table of updated results to date.

- Four wells were sampled in third performance monitoring round (Apr 2023): EMW-02, EMW-04, IW-02 and MW-309.
- RDX concentrations remain well below 50 ug/L, including historically problematic well MW-309 (from baseline of 130 ug/L to ND in Apr 2023).

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- High Total Organic Carbon (TOC) and geochemical trends (depleted nitrate and increased dissolved iron) show sustained reducing conditions, with improvements noted in MW-309 and EMW-04 compared to Jan 2023.

Hans Trousil asked why there is a hotspot in this certain area. Our hydrogeologists think there is a bowl structure at depth. As alkalinity rises, the better the conditions are for bioremediation.

Vaughn asked about the location of Trench 5. Jeff responded it's at OU-4 the IDA (inert disposal area). Vaughn asked about the old fly ash waste pile right next Brush Creek. IAAAP did a remedial action to fix that over two years ago (before COVID). Vaughn asked if we are finding any fly ash in the creek. Darlene's team samples Brush Creek surface water but only off-post. Vaughn said in the old days they would dump fly ash in the creek to change the color of the creek (used to run red and the farmers would complain). Jen Busard will check on how often they maintain the old fly ash waste pile.

Hans asked about the bioreactor. Dean Johnson said it isn't operational currently. Jen said there is a contract forthcoming to pick up that work.

There were no further questions.

FUSRAP Update

Mike Kessler provided an update on FUSRAP activities. He first presented the definition of FUSRAP: Formerly Utilized Sites Remedial Action Program to deal with former atomic energy commission radioactive waste. Assigned to DOE and then transferred to USACE. FUSRAP is in the final 12-18 months of Remedial Action.

After the appropriate paperwork documenting that the project is completed, FUSRAP begins a 2-year monitoring phase. HQUSACE is providing sufficient funding to complete all OU-8 and OU-1 work. The IAAAP site is in the IMPLEMENTATION PHASE; specifically, the REMEDIAL ACTION step. This phase/step involves site preparation and construction activities.

Mike thinks FS 12 remedial action will be completed this year. FS 6 has some delays in the schedule. Two OUs assigned: OU1 primarily explosives contaminated soils in Line 1 and West Burn Pads (WBP), while OU8 is for predominantly looking for low level radiation.

FUSRAP has conducted a significant amount of sampling at IAAAP. Additional remediation is required at Line 1:

- REV B of the Buildings 1-03/1-04, and Clarifiers for Buildings 1-10/1-12 Pre-Design Investigation Report (PDIR) was submitted to the EPA and IA DNR for review on 1-MAR. Comments from EPA are pending.
- The PDI Work Plan to investigate Line 1 Buildings 1-03-2, 1-03-3, 1-06-2, 1-50, and 1-60 was approved on 28-APR.
- Leidos delivered REV A of the "Inaccessible & Continuing Sources" Data

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Summary Report on 2-JUN. Had started remediation in 2008 and 2013 but Mike's predecessor had to stop.

- FUSRAP continues working to award a new contract to complete remediation.

OU-8 is the DU sites. Made some progress but not too much. Remains about 80% complete.

- No radiological remediation was required at Warehouse 3-01, or Yards C, G, & L to be protective of the site worker.
- Line 1 Structures remediation complete.
- RA is complete in the FS-1/2, 3/4/5, and 14 Areas. REV A of the PRAR/FSSE was delivered by Leidos in May.

Firing Sites 6 Area:

- PDI work restarted on 3-APR. The GWS Survey work is over 85% complete in the initial planned area. Some brush clearing remains.
- A supplemental Archaeological Survey is planned for JUN-JUL

Firing Sites 12 Area:

- Final Status Survey (FSS) is complete in 2 of the 6 Class II SUs.
- FSS is complete in 98.4% of the 124 Class I SUs.
- Contract award to complete FS-12 is in progress.
- Some good news for Mike is that contract for remediation. They will allow Mike to sole source a contract with Ohana Cabrera a small business.

Mike shared a series of remediation maps of FS-6 and FS-12. Access road is going to be its own survey units. FUSRAP is in the process of completing a GWS Survey of the South Test Fire Site or FS-6. Mike showed a slide with his action item about diversion. Only within the rings do we have any diversion data. Previous contactor Northwind didn't use survey units and didn't track diversion %.

To facilitate the work, FUSRAP divided FS-6 into 17 smaller areas lettered A through Q. The areas essentially defined themselves based on existing access roads, testing areas, & fire breaks. FUSRAP is following the same process used at the North Test Fire Site or FS-12 in those areas where mechanical excavation was not deemed appropriate; that is 1) Brush Clearing, followed by 2) PDI GWS, and then 3) Investigation or Re-walks – which leads to 4) PDI Complete. If Remediation is necessary, this is when that's accomplished.

Following RA, the Systematic Soil Samples are collected and analyzed, the area is

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considered 6) Final Status Survey Complete, and after the corresponding paperwork (i.e., the MARSSIM Evaluation Report) is complete, it's considered MER complete.

FUSRAP had little to no information regarding the use of DU in testing at FS-6. Mike shared that what is known can be summed up as follows:

1. The testing involved "explosive components which contained a thin sheet of DU", and
2. There were no hydro shots.

RE: DU at FS-6... USACE Preliminary Assessment for IAAAP, December 2001 -

"Plane wave shots were tested at FS-6. These shots were used to research explosive detonation waves and did not contain any radioactive elements. The explosives used in these shots were Composition B and barium nitrate. Some tests at Firing Site 6 involved explosive components, which contained a thin sheet of DU. This DU would be expected to be pulverized and dispersed by the wind during these tests".

FUSRAP interpreted "thin sheets" and "pulverized" to mean little to no DU would be found at FS-6. Unfortunately, that has not been the case and the work took longer than originally anticipated. FUSRAP pulled FS-6 from the former "Not FS-12" PRAR/FSSE. REV A of the new FS 1-5 & 14 PRAR/FSSE is anticipated later this month. Finished PDI in parts of Area N. Did more PDI in Area B but still some to go. Designated the WESTERN Fire Break as Area R and started PDI.

Hans asked if Mike's team only excavated one foot depth. Mike said no, under the first contract they excavated 6 inches and did a gamma walkover survey. If they found more, they would excavate another 6 inches in some hotter places. Using Ohana and the S3 it had a much bigger capacity so they could excavate a foot or even two feet and process more soil.

Hans is looking at figure with blue, green, etc. and doesn't understand how much is being diverted. Mike thought that the closer to firing site zero, there would be a higher diversion rate. Hans said he would think there would be more outside of 100 m. Vaughn recalls the fire department had to put out fires at 3A and the boy scout camp because some of the hot shot would come down and start a fire. The fence around FS didn't contain all shot. Depended on triggers, size of shot, the direction of the wind, etc. That material didn't stay within FS fence, and it will be impossible to get it all. Mike pointed out that the Remedial Goal isn't to get it all, it's to get above 150 picocuries per gram.

Mike then discussed the Q3 2023 Activities completed.

OU-1:

- Completed REV 0 of the Bldgs. 1-03-2/3, 1-06-2, 1-50, & 1-60 PDI WP.

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- Received REV A of the Inaccessible & Continuing Sources DSR.
- Received REV A of the 2nd FUSRAP OU-1 Five Year Review and started PDT and EM-CX reviews.

OU-8:

- Completed PDT review of the FSA Roads Downhole Gamma Logging (DGL) PDI Work Plan.
- Received REV A of the 2nd FUSRAP OU-8 Five Year Review and started PDT and EM-CX reviews.
- Received REV A of the FS 1-5 & 14 (i.e., SE FSA) PRAR/FSSE.
- Received REV A of the CY 2022 EMDAR

Mike then provided a status update on progress toward 2023 goals, and note that several were presented with “strikethrough” Mike added a slide with goals and has a color-coded red/yellow/green for risk of achieving this year:

- Award a new FUSRAP / HTRW Support Services Contract. (GREEN)
- Provide one article to the IAAAP *Restoration News*. (GREEN)
- Award a new Remedial Action Contractor Contract. (GREEN)
- Process 2,500 CY of material at FS-12. (GREEN)
- Stockpile 500 CY for shipping. (GREEN)
- Ship 3,800 CY of material. 884.2 CYs (YELLOW)
- Restore of all remaining FSA SUs. (RED)
- Complete the 2022 OU-8 FS-12 SUs PRAR/FSSE. (GREEN)
- Complete the OU-8 FS Areas 1-5 & 14 PRAR/FSSE. (RED)
- Complete Risk Assessments for Yards L, C, and G. (RED)
- Complete an updated Line 1 RD/RAWP. (RED)

Mike then showed a slide with his Q4 2023 Activities Planned.

OU-1:

- Continue work on the 2nd FUSRAP OU-1 Five Year Review.
- Resolve comments received from REV B of the Line 1 Bldgs. 1-03/1-04 + Clarifiers PDIR.
- Begin PDT review of REV A of the OU-1 Line 1 “Inaccessible & Continuing Sources” Data Summary Report

OU-8:

- Continue work on the 2nd FUSRAP OU-8 Five Year Review

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- Complete verification of the FS-12 Class II SUs and PDI at FS-6.
- Resolve comments received from REV B of the 2022 OU-8 FS-12 SUs PRAR/FSSE and Test Fire Pit Data Summary Report
- Receive and/or Begin PDT review of these REV A documents...
- OU-8 FS 1-5 & 14 (SE FSA) PRAR/FSSE
- CY 2022 EMDAR
- RAD Background Threshold Values report
- “2023” OU-8 FS-12 SUs PRAR/FSSE
- Initiate T&D BPA work and FS-12 Remediation work.

Mike presented a schedule for the 5YR and thanked the RAB members that he interviewed as part of the process.

Dean Vickstrom asked if we are concerned about any potential derailment issues. Mike answered we ship off 99% soil and very low-level contamination.

Mark asked in OU-8 what contaminants are the expanded excavation. Mike said it is DU.

Mike brought some of the meters used for rad surveys. The Ludlum model is used for gamma walkover surveys, and for structural surveys they use a different Ludlum model. Mike brought his team from Leidos and some meters for show/tell. Ludlum Model 2221 Scaler/Rate Meter with a Model 44-10 sodium iodide (NaI) gamma scintillation detector (“2x2”)

- Surveys for low-level gamma radioactivity
- Used for Gamma Walkover Survey (GWS) in soil areas

Ludlum Model 2221 Scaler/Rate Meter with a Model 43-89 detector

- Surveys for alpha and beta radioactivity
- Used for structural surfaces, i.e., pavement, floors, walls, and equipment

Mark asked if the details of Mike’s presentation are recorded? Yes, the meeting minutes incorporate Mike’s meeting notes and talking points.

Mark asked why are we extending FS 6 area? Mike explained they found much more than expected and record keeping was poor for that area unlike FS-12.

Vaughn asked why are we forgetting the triggers? We talk about DU but never mention the triggers. He pointed out that FS wasn’t even supposed to be at IAAAP. It was a cost cutting move by AEC because they had shipped off munitions to White Sands in Texas.

Greg Rakers addressed the comment Mark made about the lack of PPE in the photo shared. It has been downgraded over time to no longer require respirators. They are scanned going in/out of radiation areas. We are air monitoring constantly for safety

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reasons. Cesium and cobalt are comingled with DU.

Hans asked if any of the work being conducted is in confined space? Greg said not currently, but in years past at FS 10.

Mark asked if DNR and EPA oversees H&S of the site workers, and Shelly answered that OSHA is in charge of that oversight.

Vaughn asked if a new line is going to be built. Will there be H&S plans for those contractors. Are they given information about the contamination? Jen said there are modernization plans for a new line, south of Line 800.

There were no further questions.

Old Business – Action Items from Previous Last Meeting

There were actions from last meeting:

- Mike was asked about DU disposal pct and totals during his January presentation, and he is still working on that. Mike still needs to answer this question that Hans has had about total DU disposed of.
- Unidentified substance waste site that is NFA for groundwater.

Action Items for Today

- Mike is still working on the total pct of DU per SU.
- Julie wanted to hear about NFA at one OU-11 site, and Jeff will address that next time during his presentation.

Hans thanked Kellie Crist for her help and wished her well in the future.

Next meeting is planned for 17 Oct 2023 and back at West Burlington City Hall.

Meeting adjourned at 1:12 pm.

Original signed by:



Kayla Johnson
Secretary

Original signed by:



Hans Trousil
Community Co-Chair

Original signed by:



Jen Busard
Army Co-Chair

- Exhibits: 1 Attendees
2 Agenda
3 Environmental Services Update
4 FUSRAP Update
5 MMRP Update

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Exhibit 1

GOVERNMENT MEMBERS PRESENT (4)

Jen Busard
Wes March (via Teams)
Shelly Nellesen with guest Andrew Carver

RAB MEMBERS PRESENT (6)

Hans Trousil
Mark Hagerla
Robert Haines
Dean Vickstrom
Vaughn Moore
Kellie Crist

PUBLIC PRESENT (12)

Jeff Morrison
Mike Kessler
Christa Poggemiller
Dean Johnson
Seth Reedy
Jonathan Harrington
Greg Rakers
Michele Beck
Darlene Abbott (via Teams)
Shane Ehlin
Kayla Johnson
Gene Ng (via Teams)

Total in attendance: 22